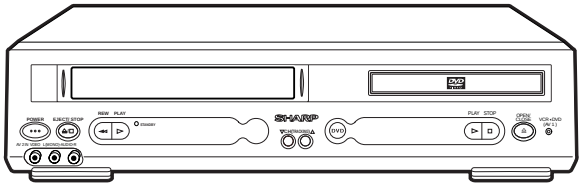
SHARP SERVICE MANUAL

S61U2DV-NC55U

SERVICE MANUAL

VCR/DVD COMBINATION MODEL

VCR/DVD COMBINATION MODEL



MODELS DV-NC55U DV-NC55C DV-NC55M

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

MODELS DV-NC55U/C/M

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SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

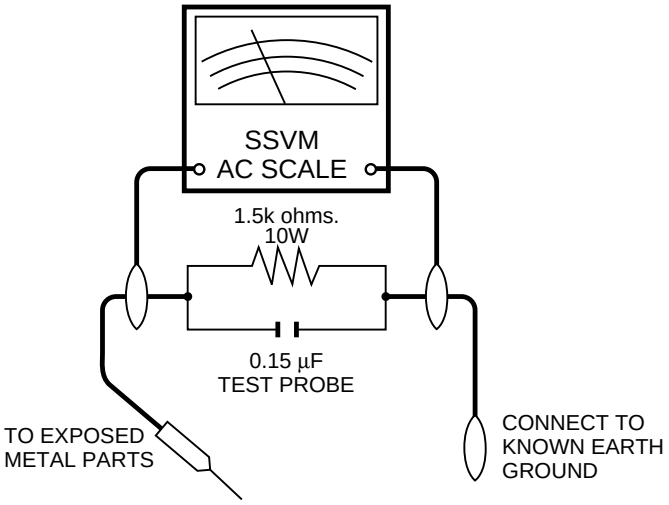
1. IMPORTANT SERVICE NOTES

BEFORE RETURNING THE VCR/DVD COMBINATION MODEL

Before returning the video cassette recorder to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the VCR/DVD combination model.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor/capacitor networks, mechanical insulators etc.
3. To be sure that no shock hazard exists, check for current in the following manner.

- Plug the AC line cord directly into a 120 volt AC outlet (Do not use an isolation transformer for this test).
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit.
- Use an SSVM or VOM with 1000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor (See Diagram).
- Move the resistor connection to earth exposed metal part having a return path to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, etc.) and measure the AC voltage drop across the resistor. Reverse the AC plug on the set and repeat AC voltage measurements for each exposed part. Any reading of 0.45V rms (this corresponds to 0.3mA rms AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the VCR/DVD combination model to the owner.



WARNING : TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.

This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

CAUTION:

3.0A 125V

This symbol mark means fast operating fuse.
For continued protection against risk of fire, replace only with same type fuse F901 (3.0A, 125V).

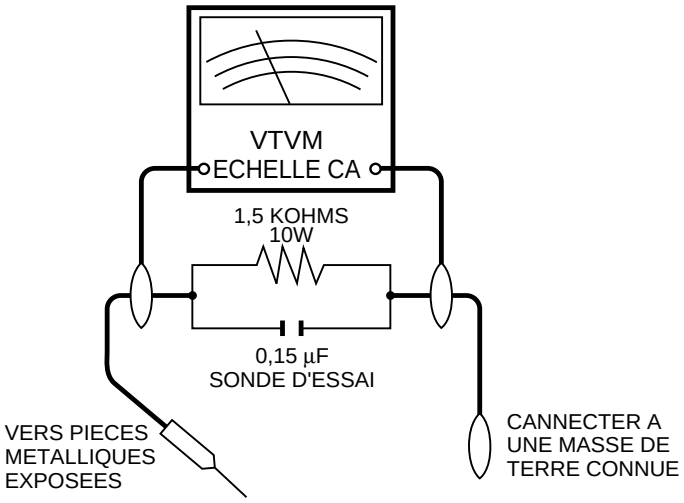
1. NOTES DE SERVICE IMPORTANTES

AVANT DE RENDRE LE VCR/DVD MAGNETOSCOPE

Avant de rendre le magnétoscope à l'utilisateur, effectuer les vérifications de sécurité suivantes.

1. Vérifier toutes les gaines de fil pour être sûr que les fils ne sont pas pincés ou que le matériel n'est pas coincé entre le châssis et les autres pièces métalliques dans le VCR/DVD magnétoscope.
2. Vérifier tous les dispositifs de protection tels que les boutons de commande non métalliques, les matériaux d'isolement, le dos du coffret, les couvercles de compartiment et ajustement ou les boucliers, les réseaux de résistance / condensateur d'isolement, les isolateurs mécaniques, etc.
3. Pour être sûr qu'il n'y a aucun risque de choc électrique, vérifier le courant de fuite de la maniére suivante.

- Brancher le cordon d'alimentation secteur directement dans une prise de courant de 120 volts. (Ne pas utiliser de transformateur d'isolement pour cet essai).
- Utiliser deux fils à pinces et connecter une résistance de 10 watts 1,5 kohm en parallèle avec un condensateur de 0,15 µF en série avec des pièces du coffret métallique exposées et une masse de terre connue telle qu'un tuyau ou un conduit d'eau.
- Utiliser un VTVM ou VOM avec une sensibilité de 1000 ohms par volt ou plus ou mesurer la chute de tension CA entre la résistance (voir diagramme).
- Déposer la connexion de la résistance à toutes les pièces métalliques exposées ayant un parcours de retour au châssis (connexions d'antenne, coffret métallique, têtes de vis, boutons et arbres de commande, etc.) et mesurer la chute de tension CA entre la résistance. Inverser la fiche CA (une fiche intermédiaire non polarisée doit être utilisée à seule fin de faire ces vérifications.) sur l'appareil et répéter les mesures de tension CA pour chaque piéce métallique exposée. Toute lecture de 0,45 Vrms (ceci correspond à 0,3 mArms CA) ou plus est excessive et signale un danger de choc qui doit être corrigé avant de rendre le VCR/DVD magnétoscope à son utilisateur.



ATTENTION: POUR REDUIRE LES RESQUES D'INCENDIE OU DE CHOC ELECTRIQUE, NE PAS EXPOSER CET APPAREIL A LA PLUIE OU A L'HUMIDITE.

ATTENTION

RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR

ATTENTION: AFIN DE REDUIRE LES RISQUES DE CHOC ELECTRIQUE, NE PAS RETIRER LE COUVERCLE, AUCUN ORGANE INTERNE NE PEUT ETRE REPARE PAR L'UTILISATEUR. CONFIER L'APPAREIL A UN DEPANNEUR QUALIFIE.

Ce symbole signale à l'utilisateur la présence d'une tension non isolée à l'intérieur de l'appareil qui peut être la cause de secousses électriques dangereuses.

Ce symbole avertit l'utilisateur que des instructions importantes relatives à l'utilisation et àl'entretien se trouvent dans le manuel accompagnant l'appareil.

PRECAUTION:

3,0A 125V

Cette marque indique le fusible à action in stantansée. Pour la protection continue contre le risque d'incendie, ne remplacer que par le fusible type F901 (3,0A, 125V).

2. FEATURES

■ Common Features

- A DVD, CD player and VCR all in one.
- Simultaneous VCR recording and DVD playback.

■ VCR

- VHS Hi-Fi Stereo Sound/Double-Azimuth 4-Heads
- Built-in MTS (Multi-channel TV Sound) Decoder
- 400 Times Rewind Speed to Fast Forward and Rewind.
- EZ Set Up (Auto Channel/Clock Set Up)
- S-VHS Quasi Playback
- 19μ Clear Picture System (in EP mode)
- Simple Recording Timer
- Sharp Super Picture
- Exact Rec/Tape Remaining

■ DVD

- Plays DVD, CD (Digital Audio) discs as well as CD-R/CD-RW discs recorded in MP3 file format
- Virtual Dolby Surround (QSURROUND*[1]) provides high-quality surround sound
- Digital Gamma correction and Digital Super Picture functions
- Dolby Digital*[2]/DTS*[3] digital out capability
- High-quality digital images
- High-quality digital sound

*[1] QSURROUND™ is a trademark of QSound Labs, Inc.
*[2] Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.
*[3] "DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc.

3. SPECIFICATIONS

Signal System:	NTSC
INPUT/OUTPUT JACKS	
DVD/VCR shared output jacks:	VIDEO jack: RCA Pin-jack
	AUDIO jack: RCA Pin-jack
DVD output jacks:	VIDEO jack: S-Video jack
	AUDIO jack: RCA Pin-jack
	DIGITAL AUDIO IF: Coaxial digital
	AUDIO output jack: RCA Pin-jack
VIDEO input jacks:	VIDEO jack: RCA Pin-jack
	AUDIO jack: RCA Pin-jack
VCR	
Video Recording System:	Rotary Two-Head Helical Scanning
Number of Video Heads:	4
Video Signal Standard:	NTSC Color System
Audio Recording System:	1 Stationary Head for Linear Audio
	2 Rotary Heads for Hi-Fi stereo
Tape Width:	12.7 mm (1/2 inch)
Tape Speed:	(SP) 33.35 mm/sec (1.31 i.p.s.)
	(LP) 16.67 mm/sec (0.66 i.p.s.) (playback only)
	(EP) 11.12 mm/sec (0.44 i.p.s.)
Maximum Recording Time:	(SP) 160 min (T-160)
	(EP) 480 min (T-160)

Channel Coverage:	VHF 2-13 UHF 14-69 CATV 1-125
Antenna Input:	75Ω
Video Input:	Input level: 0.5 to 2.0 Vp-p (75Ω)
Video Output:	Output level: 1.0 Vp-p (75Ω)
Audio Output:	Input level: –8 dBs (47kΩ)
(0 dBs = 0.775 Vrms)	
Audio Output:	Output level: –8 dBs (1kΩ)
(0 dBs = 0.775 Vrms)	
Hi-Fi Audio:	Dynamic Range: 90 dB Frequency Response: 20 Hz-20 kHz
Memory Backup:	60 seconds

DVD

DVD/VCR shared Video output:	Output level: 1 Vp-p (75Ω)
S video output:	Y output level: 1 Vp-p (75Ω) C output level: 0.286 Vp-p (75Ω)
Audio output:	Output level: 2 Vrms (1 kHz, 0 dB)
Video signal horizontal resolution:	500 lines
S/N ratio:	60 dB
Audio signal frequency characteristics:	For DVD linear PCM playback: 4 Hz to 22 kHz (48 kHz sampling) 4 Hz to 44 kHz (96 kHz sampling) CD playback: 4 Hz to 20 kHz (JEITA)
S/N ratio:	CD: 100 dB, 1 kHz (EIAJ)
Dynamic range:	DVD linear PCM: 96 dB CD: 96 dB (JEITA)
Total harmonic distortion ratio:	CD: 0.006% (JEITA)
Pickup:	Wave length: 650 nm Laser output: Max. 0.7 mW

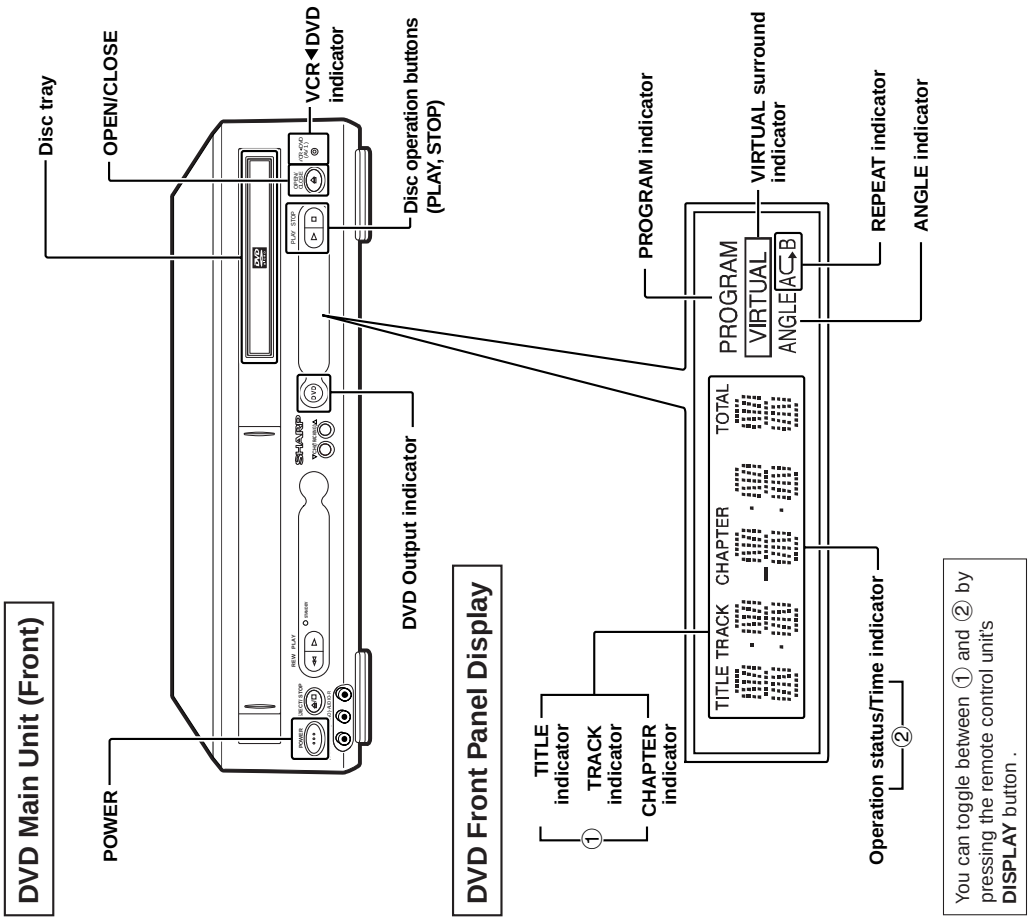
Operating temperature:	5°C to 35°C (41°F to 95°F)
Storage temperature:	–20°C to 55°C (–4°F to 131°F)
Power supply:	120 V AC, 60 Hz
Power consumption:	30 W
Dimensions:	430 mm × 99 mm × 346.5 mm (W × H × D) (including attachments) (16 $^{15}/_{16}$" × 3 $^{29}/_{32}$" × 13 $^{21}/_{32}$")
Weight:	5.1 kg (11.3 lbs)

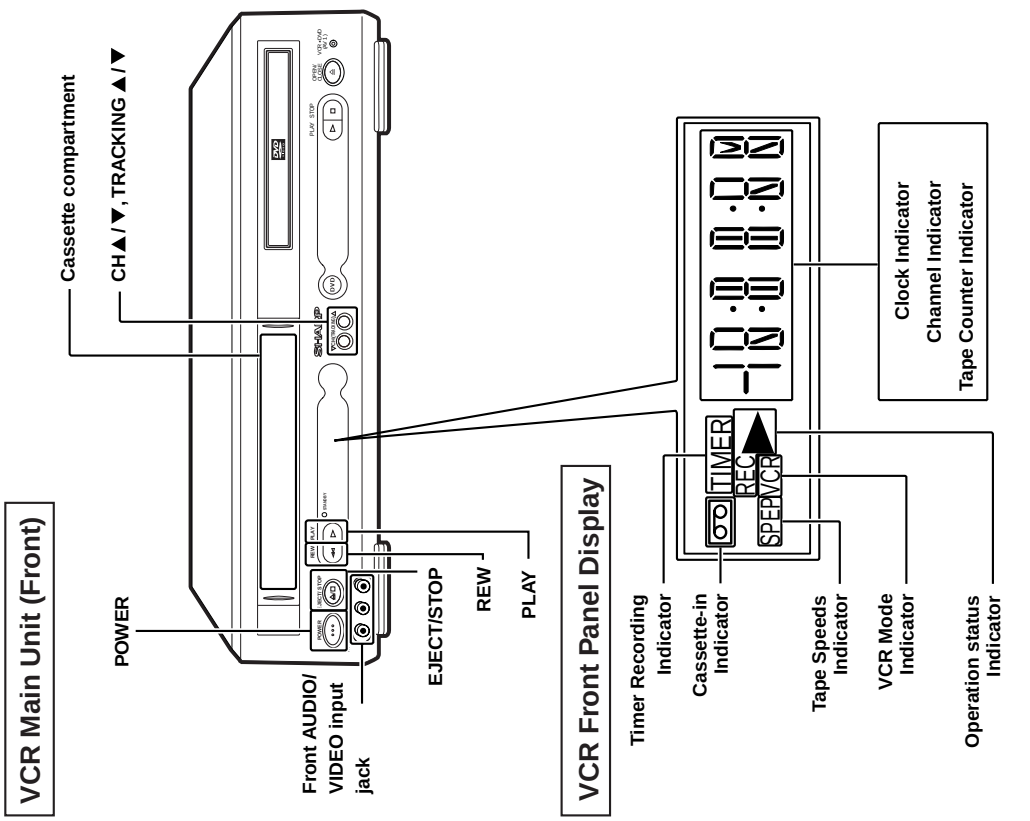
Specifications are subject to change without notice.
Weight and dimensions are approximate.

3-1. ACCESSORIES

Accessories: Remote Control Unit x 1, Battery x 2, VIDEO/AUDIO Cable x 1, 75 Ohm Coaxial Cable x 1

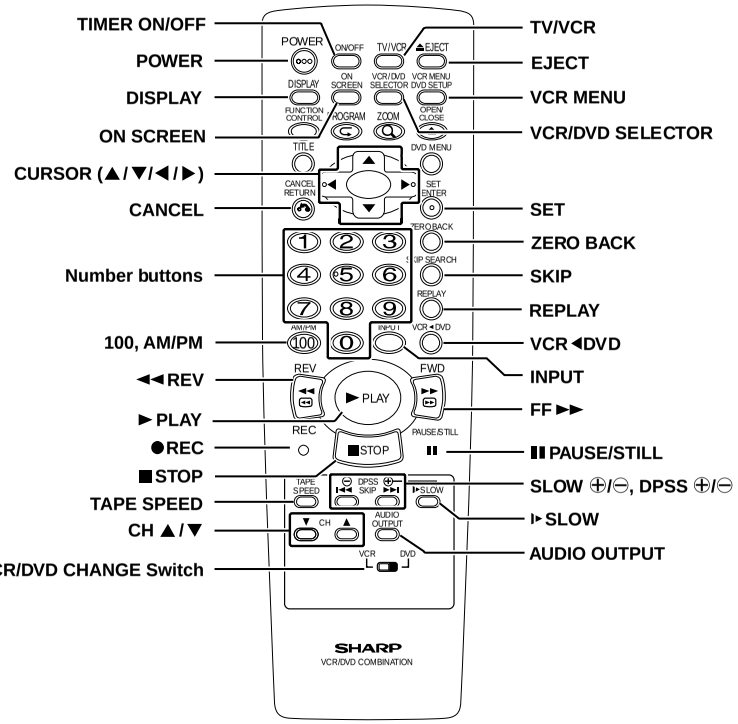
4. PART NAMES


DVD Main Unit (Front)
Disc tray
OPEN/CLOSE
VCR◀DVD indicator
Disc operation buttons (PLAY, STOP)
DVD Output indicator
POWER
DVD Front Panel Display
PROGRAM indicator
VIRTUAL surround indicator
REPEAT indicator
ANGLE indicator
TITLE indicator
TRACK indicator
CHAPTER indicator
Operation status/Time indicator
TITLE TRACK CHAPTER TOTAL
PROGRAM
VIRTUAL
ANGLE A↔B
① ②
You can toggle between ① and ② by pressing the remote control unit's DISPLAY button .


VCR Main Unit (Front)
Cassette compartment
CH▲/▼, TRACKING ▲/▼
POWER
EJECT/STOP
REW
PLAY
Front AUDIO/ VIDEO input jack
VCR Front Panel Display
Timer Recording Indicator
Cassette-in Indicator
Tape Speeds Indicator
VCR Mode Indicator
Operation status Indicator
Clock Indicator
Channel Indicator
Tape Counter Indicator
TIMER REC
SP EP VCR

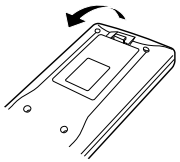
Remote Control Unit (VCR Operation Buttons)

- The explanations on this page use the **VCR/DVD CHANGE Switch** in the **VCR** position.

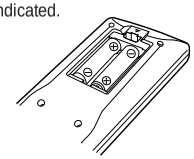


Loading the

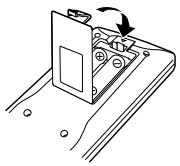
1 Open the battery cover by pulling the lid in the direction of the arrow.



2 Load the batteries.
Load the two batteries (R6 UM/SUM-3 or AA) supplied with the remote control unit so that the battery poles ⊕ and ⊖ are positioned as indicated.

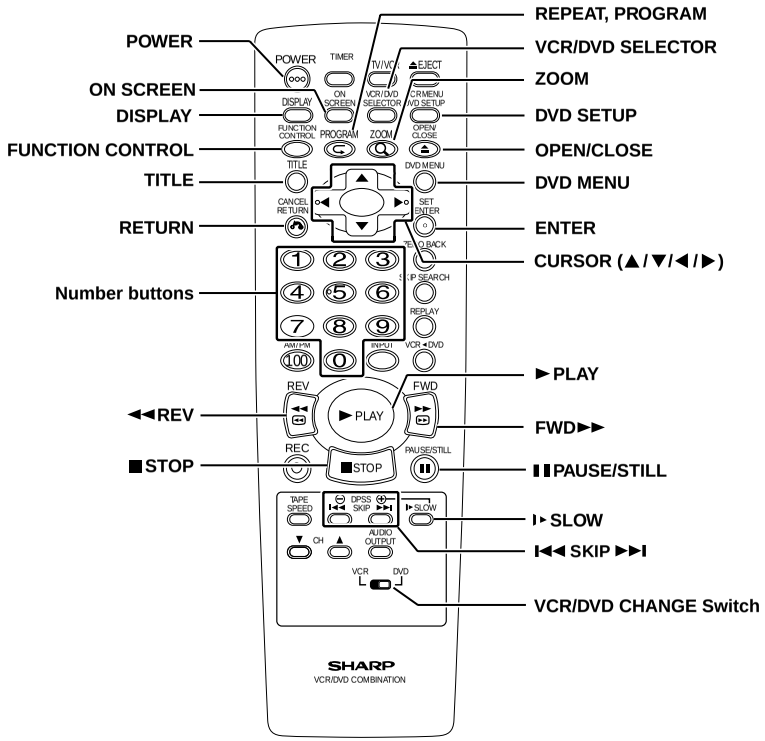


3 Close the battery cover by lowering the lid in the direction of the arrow.



Remote Control Unit (DVD Operation Buttons)

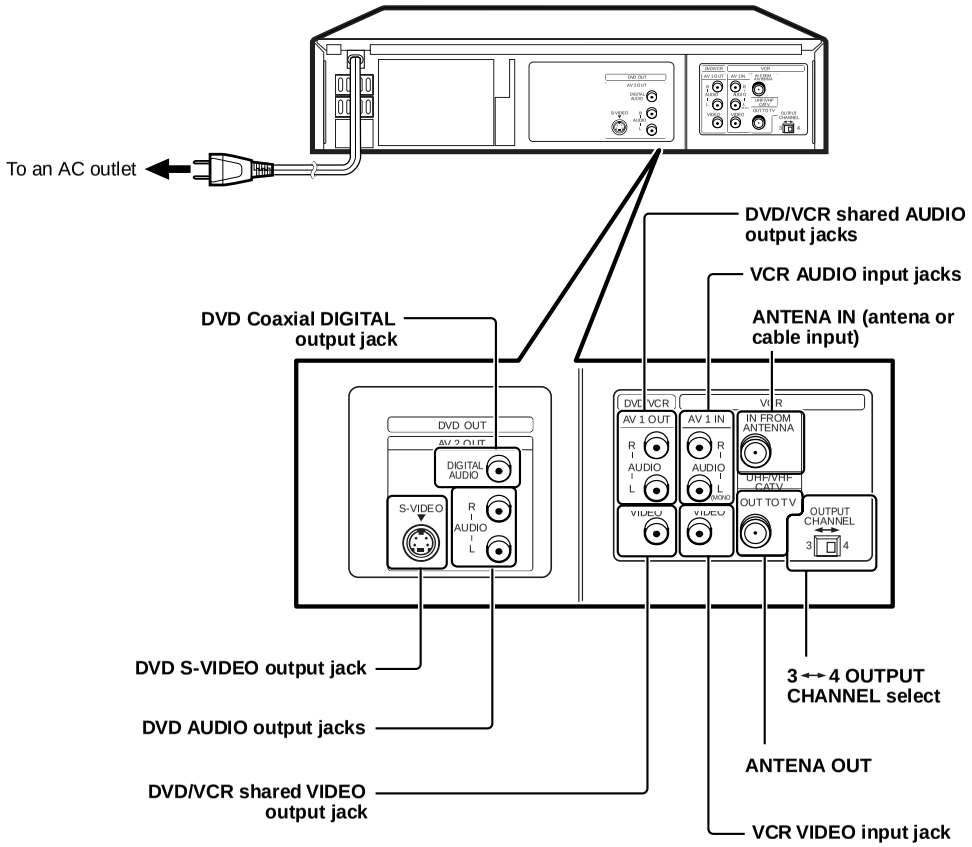
- The explanations on this page use the **VCR/DVD CHANGE Switch** in the **DVD** position.



NOTE

- Do not subject the remote control unit to shock, water or excessive humidity.
- The remote control unit may not function if the Unit sensor is in direct sunlight or any other strong light.
- Incorrect use of batteries may cause them to leak or burst. Read the battery warnings and use the batteries properly.
- Do not mix old and new batteries, or mix brands in use.
- Remove the batteries if you do not use the remote control unit for an extended period of time.

Main Unit (Rear)



5. MAINTENANCE CHECK ITEMS AND EXECUTION TIME

MECHANICAL PARTS REGUIRING PERIODICAL INSPECTION

Use the following table as a guide to maintain the mechanical parts in good operating condition.

Parts \ Maintained	1,000 hrs.	2,000 hrs.
Pickup	◯	◯
Spindle Unit	□	◯
Sled Motor		◯
Loading Motor		◯
Belt	□	◯

Note ◯ : Part Replacement
□ : Cleaning
(For cleaning, use a lint-free cloth danpened with pure isopropyl alcohol.)

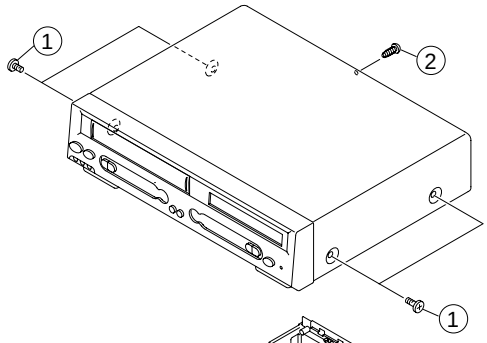
CARES WHEN USING THE PICKUP

1. The laser light having wavelength 650 nm is emitted from the objective lens. BE CAREFUL SO THAT THE LASER LIGHT DOES NOT ENTER DIRECTLY INTO YOUR EYE.
2. The semiconductor laser may be easily damaged by electrostatic charges. When handling the pickup, take care so that the electrostatic charge is not generated.
3. The semiconductor laser may be easily damaged by overcurrent. Use the power supply unit which does not give any spike current when the power is turned on and off.
4. Carefully remove the dust and dirt from the objective lens with the lens blower.
   When handling the objective lens, take due care so that it is not contaminated with fingerprint, etc. If the objective lens is contaminated, impregnate the cleaning paper with a small quantity of solvent (isopropyl alcohol), and gently wipe to clean.
5. The ozone layer depleting components (ODC) are not used in the production process for the product.

6. DISASSEMBLY METHOD

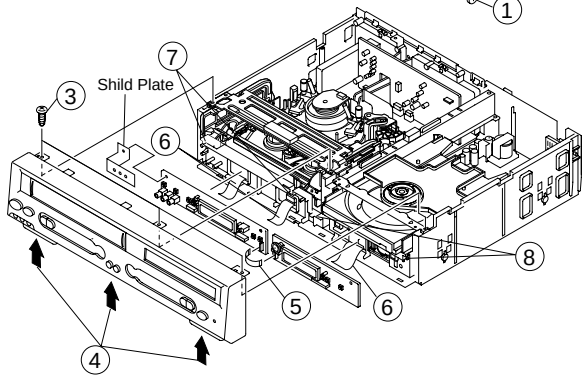
6-1. DISASSEMBLY METHOD

1) Removing the cabinet.
   (1) Remove the five screws ① and ②.

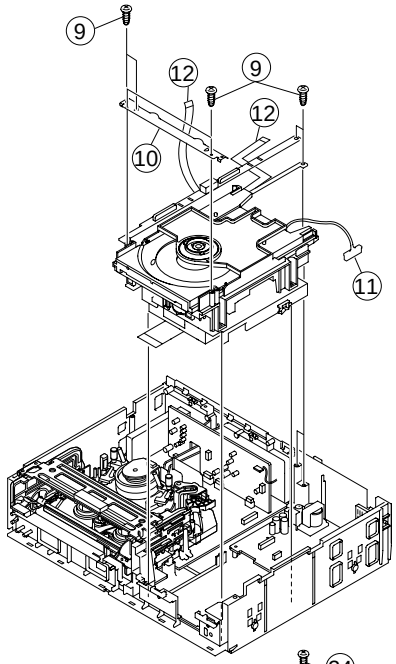


2) Removing the front panel.
   (1) Remove the earth plate.
   (2) Remove the three screws ③.
   (3) Remove the three hooks ④.

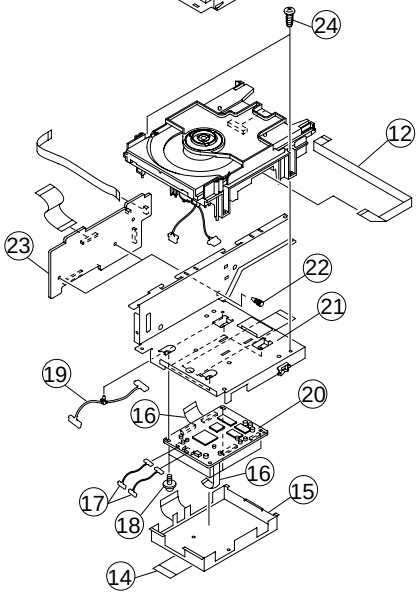
3) Removing the front PWB.
   (1) Remove the shild plate.
   (2) Remove the four FFCs ⑤ and ⑥.
   (3) Release the two hooks ⑦ and tilt the PWB toward you to remove it.
   (4) Release the two hooks ⑧ and tilt the PWB toward you to remove it.



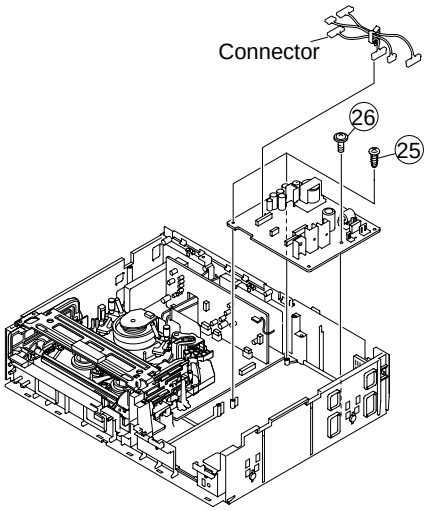
4) Removing the DVD mechanism.
   (1) Remove the six screws ⑨.
   (2) Remove the DVD REINF. angle ⑩.
   (3) Remove the connector ⑪.
   (4) Remove the two FFCs ⑫.



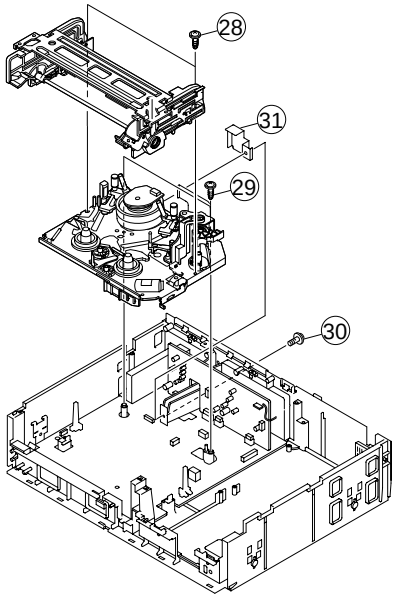
   (5) Peel the FFC ⑫ off the DVD mechanism.
   (6) Remove the FFC ⑭.
   (7) Remove the shield (lower) ⑮.
   (8) Remove the two FFCs ⑯, and at two connectors ⑰, and at four screws ⑱.
   (9) Remove the wire from the wire holder ⑲.
   (10) Remove the DVD main PWB ⑳.
   (11) Remove the FFC cover ㉑.
   (12) Remove the two interface PWB holders ㉒, and remove the interface PWB ㉓.
   (13) Remove the two screws ㉔.



(14) Remove the connector.
(15) Remove the three screws ㉕ and ㉖.

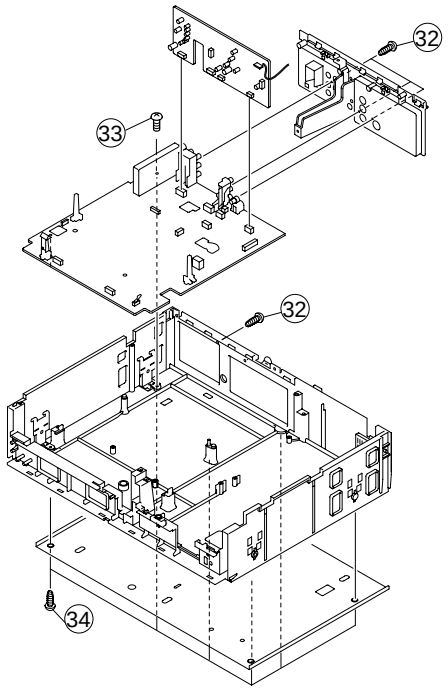


5) Removing the cassette housing control/VTR mechanism.
(1) Remove the two screws ㉘.
(2) Remove the two screws ㉙.
(3) Remove the one screw ㉚.
(4) Remove the H/A shield case (upper) ㉛.



6) Removing the terminal plate/VTR main PWB.
(1) Remove the four screws ㉜.
(2) Remove the one screw ㉝.

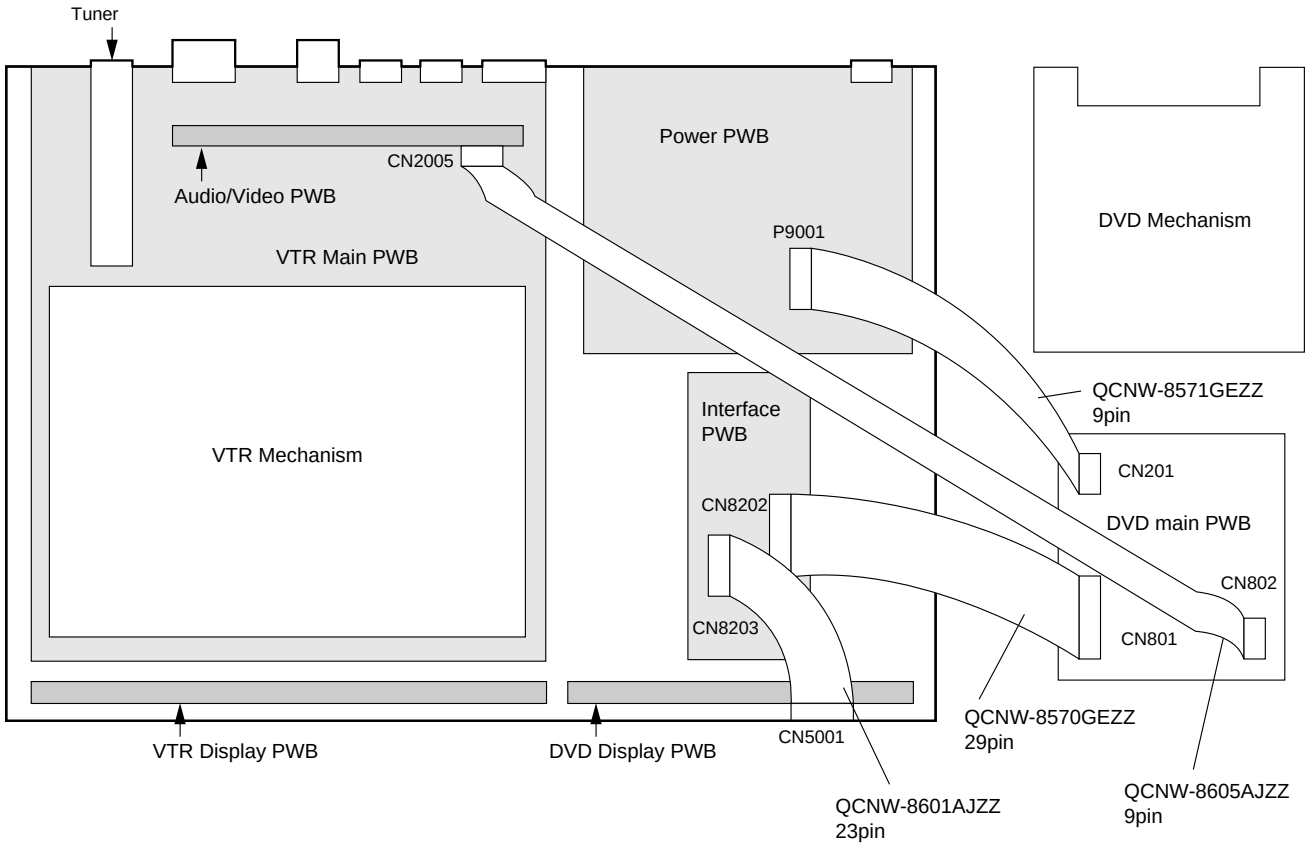
7) Removing the bottom plate.
(1) Remove the six screws ㉞.



6-2. EXTENSION CABLE USE POINT (FOUR PLACES)

Parts Code	Price Code	Name/Description
QCNW-8570GEZZ	AV	Extension cable (FFC), 29pin 500mm DVD main CN801–I/F CN8202
QCNW-8571GEZZ	AN	Extension cable (wire), 9pin 500mm DVD main CN201–power P9001
QCNW-8601AJZZ	AE	Extension cable (FFC), 23pin I/F CN8203–DVD display CN5001
QCNW-8605AJZZ	AE	Extension cable(FFC), 9pin DVD main CN802– AV CN2005

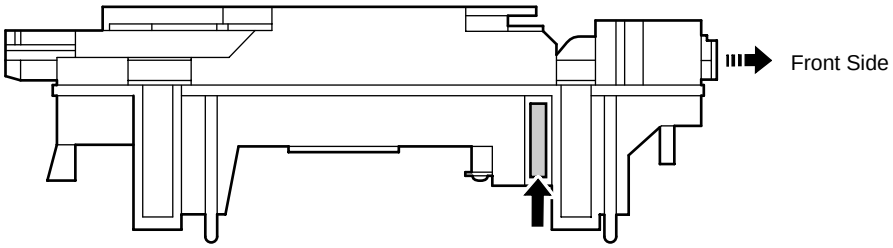
Extension Cable Diagram



6-3. REPLACEMENT OF MAIN PARTS

<Take out disk>

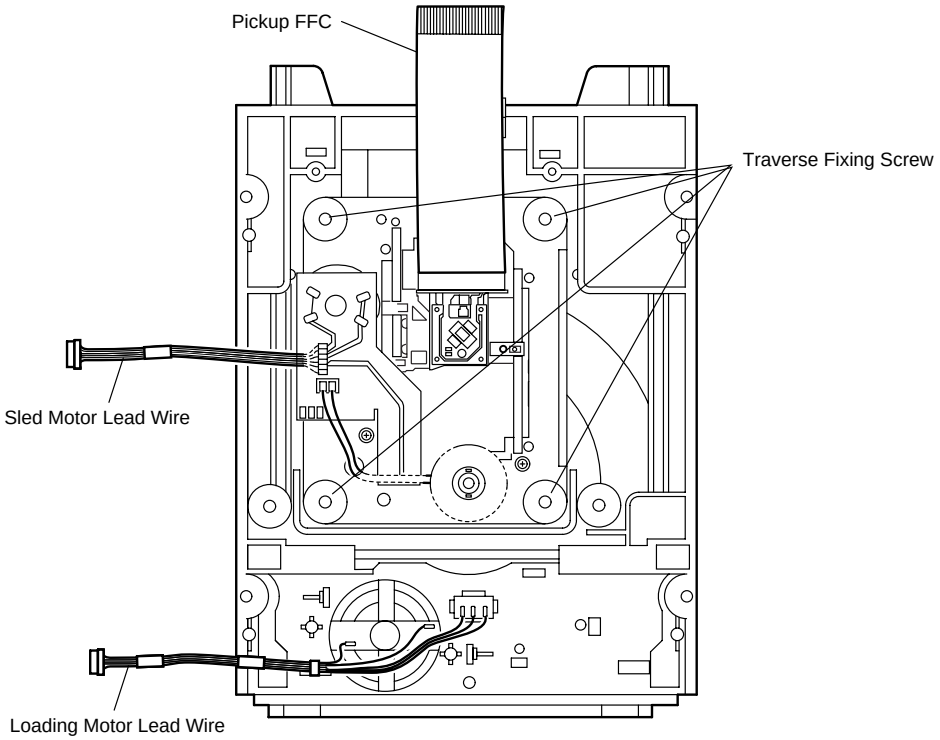
1. Remove the mechanism with angle from the set (refer to (35) on page 140).
2. It is in such cases as the thin driver, and it is pushed in slowly, and a tray is drawn in the arrow direction the slide rack on the left of the base chassis.
3. Take out disk.



<Disassembling and assembling the mechanism chassis>

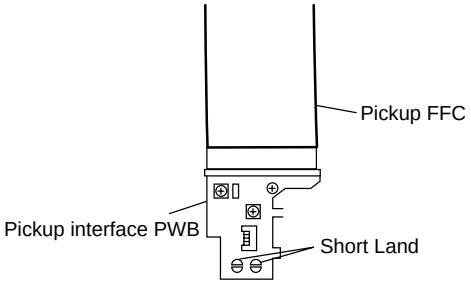
1. After setting the mechanism chassis to the angle state, ground it to prevent the electrostatic discharge damage of the pickup.
2. Remove [S] and the DVD shield (lower) (56) (refer to the illustration on page 140).
3. Remove [P], [Q], [Z] and [R] (83) from the DVD main PWB unit (68), and loosen the 4 screws (45) to remove the DVD main PWB unit (68). (Pickup relay FFC (74) isn't removed.) (refer to the illustration on page 140)
4. Remove screws fixing the base chassis (located at the back right and at front left when facing the set).
5. With the pickup FFC connected, turn over the base chassis and short (solder) two short lands on the pickup interface PWB in order to prevent the electrostatic discharge damage of the pickup.
6. Remove the pickup FFC from the main PWB.
7. Remove the pickup FFC from the pickup interface PWB.
8. Remove the traverse mounting screws to remove the traverse chassis ass'y.

Note: After assembly and wiring, remove the solder joint of the short land. If short-circuited, a disk is not played back.



<Replacing the pickup and the spindle motor>

Since the pickup optical axis and turntable inclination of DVD are adjusted with higher accuracy than of CD/MD, make a replacement as a mechanism service chassis ass'y (refer to Parts List).

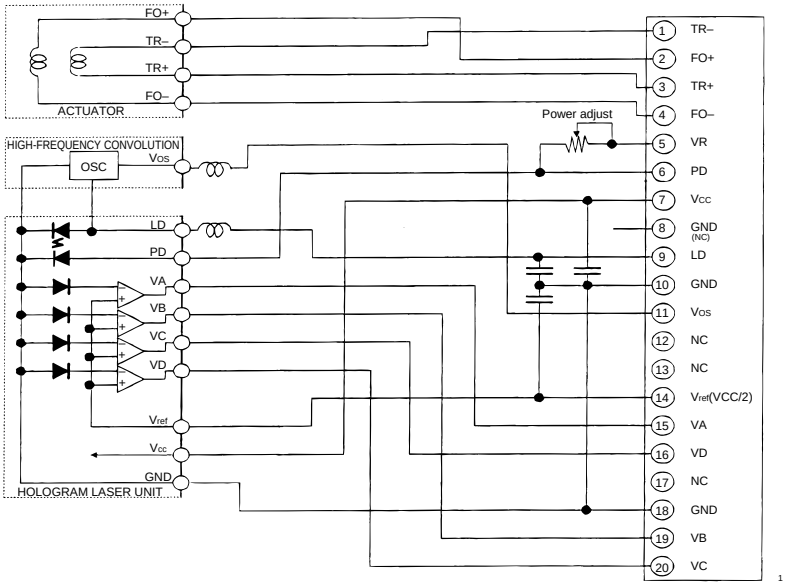


7. OPERATION OF PICKUP

7-1. CIRCUIT CONFIGURATION OF PICKUP

The pickup unit reads signals from the disk, and the flexible cable is connected to the board. The following signals flow through the cable.

7-2. EQUIVALENT CIRCUIT OF PICKUP



7-3. POLARITIES OF SIGNAL

Focus FO+, FO-	When electric current is flowed from FO+ to FO-, the lens comes to near the disk.
Tracking TR+, TR-	When electric current is flowed from TR+ to TR-, the lens goes toward the outer circumference.

7-4. SIGNALS OF PICKUP

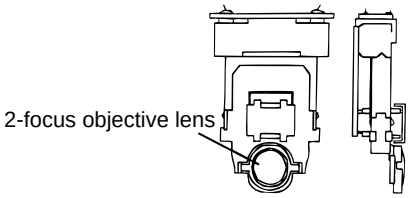
7-4-1. Tracking drive signal (TR+, TR-)

The signal drives the tracking servo mechanism which projects the beam on the track by moving the objective lens (OL) to the outer or inner circumference (at a right angle against the track) of the disk.

7-4-2. Focus drive signal (FO+, FO-)

The signal drives the focus servo mechanism which aligns the focus on the pit of the disk by elevating OL (vertically against the disk surface.)

The VR terminal is connected to GND.



Actuator assembly

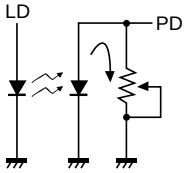
7-4-3. Monitor Diode (PD)

Since the laser diode largely varies output of the laser light even if the flowing current is slightly varied, the projection light is detected with the monitor diode to control the laser light to be equally output.

Since the current varies on the monitor diode according to the intensity of the received light of the laser diode, the drive current of the laser diode is reduced if the current of the monitor diode increases. On the contrary, the drive current of the laser diode is increased if the current of the monitor diode decreases.

As the projection light of the laser diode becomes stronger, the current of the monitor diode increases to increase the current which flows into the monitor diode output (PD). This is input to the pin 44 of IC301 and is compared with the reference voltage to control the drive current of the laser diode.

The circuit is called ALPC (Automatic Laser Power Control).



When the quantity of laser light increases, the current shown in figure increases and the PD terminal voltage rises.

IC301 is used to control. The LD terminal voltage lowers, and the quantity of light reduces. (IC301 is actuated by voltage input.)

7-4-4. Laser diode drive current control (LD)

Power supply to drive the laser diode

7-4-5. High-frequency convolution module power supply (VOSC)

The high-frequency convolution imposes the high-frequency signal on the DC current to impose the high frequency on the drive current of the laser. Thus, the interference of outgoing light and reflected light is prevented.

7-4-6. HF Signal (VA, VB, VC, VD)

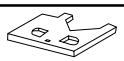
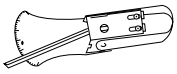
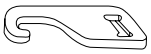
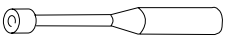
Signals recorded in the disk

8. ADJUSTMENT, REPLACEMENT AND ASSEMBLY OF MECHANICAL UNITS

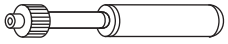
The explanation given below relates to the on-site general service (field service) but it does not relates to the adjustment and replacement which need high-grade equipment, jigs and skill. For example, the drum assembling, replacement and adjustment service must be performed by the person who have finished the technical courses.

8-1. MECHANISM CONFIRMATION ADJUSTMENT JIG

So as to perform completely the mechanism adjustment prepare the following special jigs. So as to maintain the initial performance of the machine the maintenance and check are necessary. Utmost care must be taken so that the tape is not damaged. If adjustment needs any jig, be sure to use the required jig.

No.	Jig Item	Part No.	Code	Configuration	Remarks
1.	Torque Cassette Meter	JiGVHT-063	CZ		This cassette torque meter is used for checking and adjusting the torque of take-up for measuring tape back tension.
2.	Torque Gauge	JiGTG0090	CM		These Jigs are used for checking and adjusting the torque of take-up and supply reel disks.
		JiGTG1200	CN		
3.	Torque Gauge Head	JiGTH0006	AW		
4.	Torque Driver	JiGTD1200	CB		When fixing any part to the threaded hole using resin with screw, use the jig. (Specified torque 5 kg)
5.	Master Plane Jig and Reel Disk Height Adjusting Jig	JiGRH0002	BR		These Jigs are used for checking and adjusting the reel disk height.
		JiGMP0001	BY		
6.	Tension Gauge	JiGSG2000	BS		There are two gauges used for the tension measurements, 300 g and 2.0 kg.
		JiGSG0300	BF		
7.	Pinch pressing force measuring jig	JiGADP0003	BK		This Jig is used with the tension gauge. Rotary transformer clearance adjusting jig.
8.	Reverse guide height adjustment box driver	JiGDRiVER11055	AR		This Jig is used for height adjustment of the reverse guide (for reverse guide height adjustment).
9.	Alignment Tape				These tapes are especially used for electrical fine adjustment.

Video	Audio	HiFi Audio	Track
525 Monoscope	7k	—	58µm
NTSC Color Bar	1k	—	58µm
Black Level (only SYNC) signal	1k / 2.3k	—	19µm

		VROATSV	CD		
		VROEFZCS OR VROEFZHS	BG / BH		
10.	Guide roller height adjustment driver	JiGDRiVERH-4	AP		This screwdriver is used for adjusting the guide roller height.
11.	X value adjustment gear driver	JiGDRiVER-6	BM		For X value adjustment
12.	Reverse Guide Height Adjusting Jig	JiGRVGH-F18	BU		This Jig is used for height adjustment of the reverse guide.

8-2. MAINTENANCE CHECK ITEMS AND EXECUTION TIME

Perform the maintenance with the regular intervals as follows so as to maintain the quality of machine.

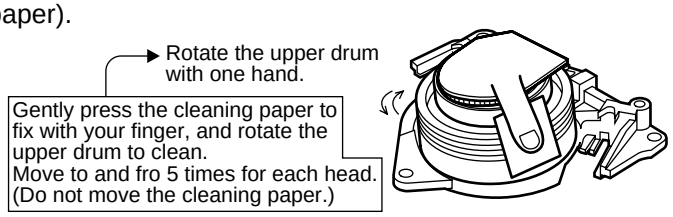
Parts \ Maintained	500 hrs.	1000 hrs.	1500 hrs.	2000 hrs.	Possible symptom encountered	Remarks
Guide roller ass'y	□	□	□	□	Lateral noises Head occasionally blocked	Abnormal rotation or significant vibration requires replacement.
Sup guide shaft	□	□	□	□		Clean tape contact part with the specified cleaning liquid.
Reverse guide	□	□	□	□		
Slant pole on pole base	□	□	□	□		
Full erase head	□	□	□	□	Color and beating	Clean tape contact area with the specified cleaning liquid.
A/C head	□	□	□	□	Small sound or sound distortion	
Upper and lower drum ass'y	□	○□	○□	○□	Poor S/N ratio, no color Poor flatness of the envelope with alignment tape	
Capstan D.D. motor	□	□	□	□	No tape running, uneven color	
Pinch roller	□	□	□	□	No tape running, tape slack	Clean rubber and rubber contact area with the specified cleaning liquid.
Reel belt		□		○	No tape running, tape slack, no fast forward/ rewind motion	
Tension band ass'y				○	Screen swaying	
Loading motor				○	Cassette not loaded or unloaded	
Idler ass'y				○	No tape running, tape slack	
Limiter pulley		□△		□○		
Supply/take-up main brake levers				○	Tape slack	
AHC (Automatic head cleaner)		○		○		Replace the roller of the cleaner when it wears down. Just change the AHC roller assembly for new one.

NOTE ○ : Part replacement. □ : Cleaning △ : Apply grease
<Specified> Cleaning liquid Industrial ethyl alcohol

* This mechanism does not need electric adjustment with variable resistor. Check parts. If any deviation is found, clean or replace parts.

Video head cleaning procedure

1. Apply one drop of cleaning liquid to the cleaning paper with the baby oiler.
2. Gently press the cleaning paper against the video head to fix your finger, and move the upper drum so that each head is passed to and fro 5 times (do not move the cleaning paper).
3. Wipe with the dry cleaning paper.

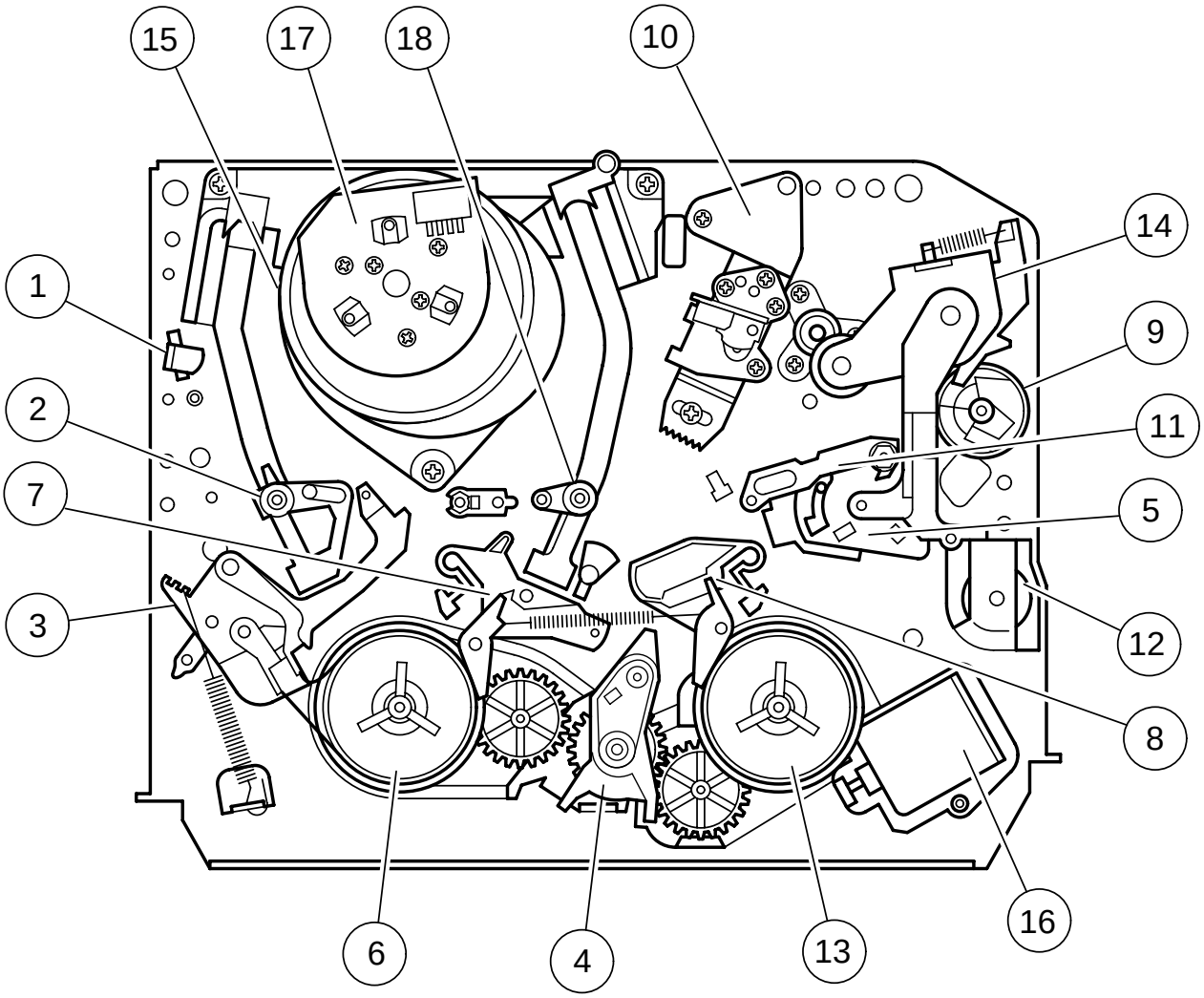

Rotate the upper drum with one hand.
Gently press the cleaning paper to fix with your finger, and rotate the upper drum to clean.
Move to and fro 5 times for each head.
(Do not move the cleaning paper.)

Notes :

- Use the commercially available ethanol of Class 1 as cleaning liquid.
- Since the video head may be damaged, do not move up and down the cleaning paper.
- Whenever the video head is cleaned, replace the cleaning paper.
- Do not apply this procedure for the parts other than the video head.

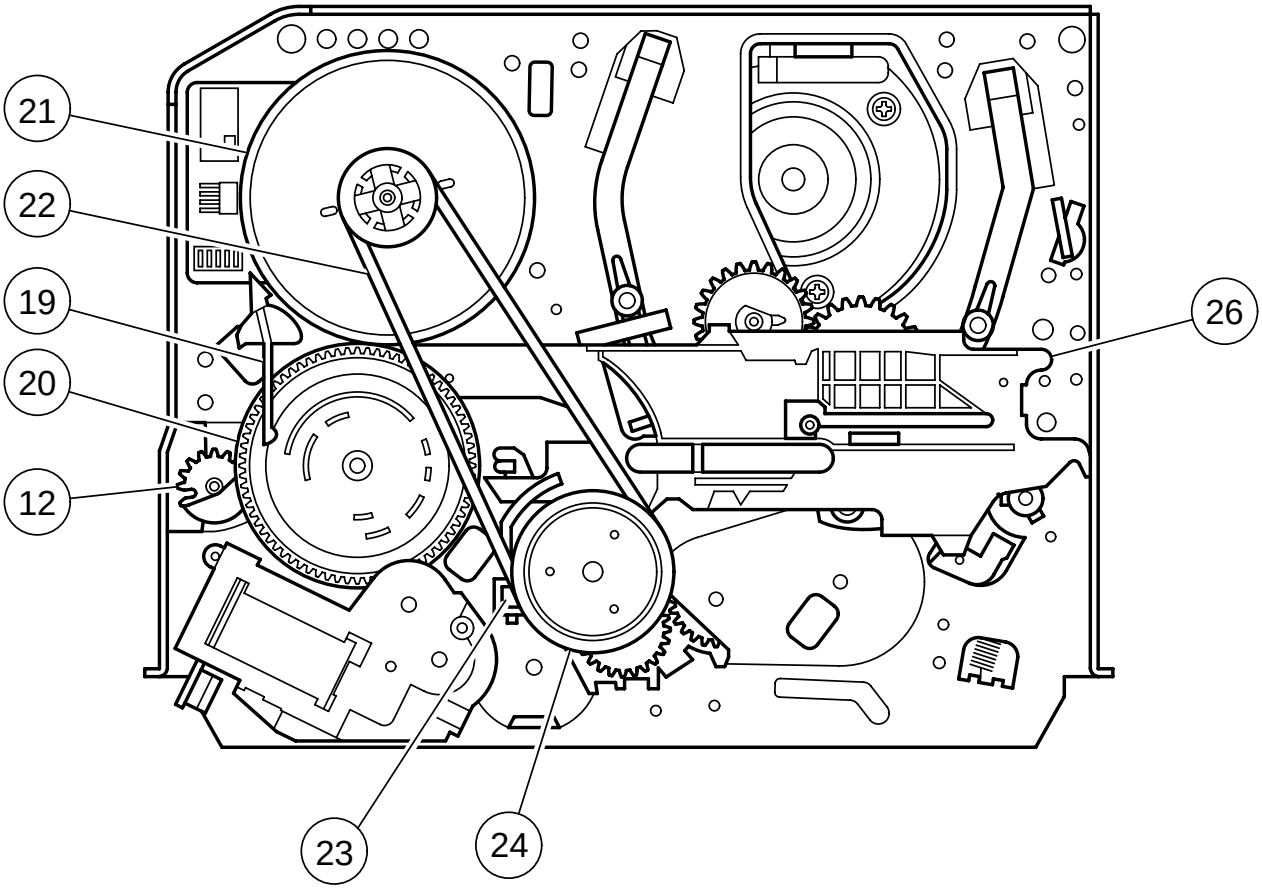
Parts Code	Description	Code
ZPAPRA56-001E	Cleaning Paper	AW
ZOiLR-02-24TE	Babe Oiler (Spoit)	AH

8-3. FUNCTION OF MAJOR MECHANICAL PARTS (TOP VIEW)



No.	Function	No.	Function
1	Full erase head	8	Take-up main brake
2	Supply pole base ass'y	9	Pinch drive cam
3	Tension arm	10	A/C head ass'y
4	Idler wheel ass'y	11	Reverse guide lever ass'y
5	Pinch drive lever ass'y	12	Casecon drive gear
6	Supply reel disk	13	Take-up reel disk
7	Supply main brake	14	Pinch roller lever ass'y

FUNCTION OF MAJOR MECHANICAL PARTS (BOTTOM VIEW)

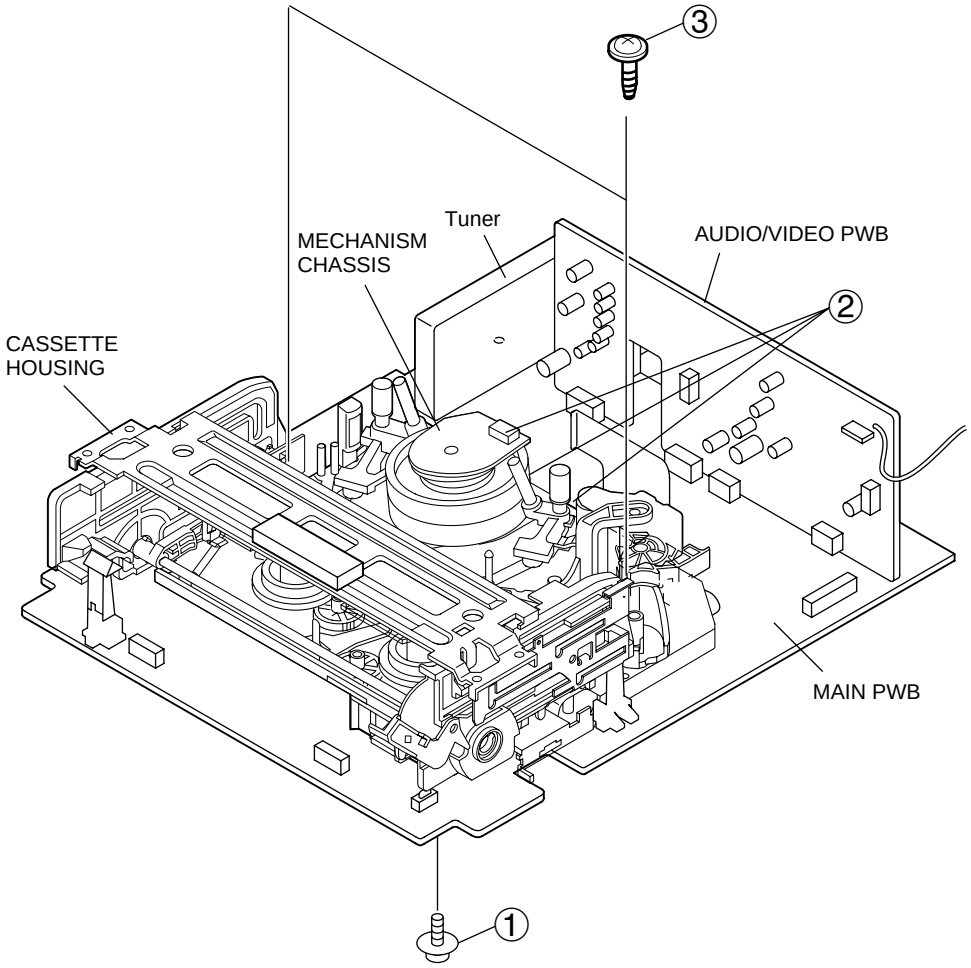


No.	Function	No.	Function
15	Upper and lower drum ass'y	22	Reel belt
16	Loading motor	23	Clutch lever
17	Drum drive motor	24	Limiter pulley ass'y
18	Take-up pole base ass'y	26	Shifter
19	Slow brake lever		
20	Master cam		
21	Capstan D.D. motor		

8-4. DISASSEMBLING THE MECHANISM/MAIN PWB ASSEMBLY

1. When removing the mechanism from the main PWB.
   Remove the PWB bottom plate 1 screw ①.
   Remove the FFC cable (AA, AD, AH) ② which connecting the PWB and the mechanism.
   Take out vertically the mechanism so that it does not damage the adjacent parts.

2. Removing the mechanism and cassette housing.
   Remove 2 screws ③ fixing the cassette housing to the mechanism, and remove the cassette housing.



8-5. CARES WHEN REASSEMBLING

INSTALLING THE CASSETTE HOUSING

When the cassette housing is installed on the mechanism, the initial setting is essential condition.

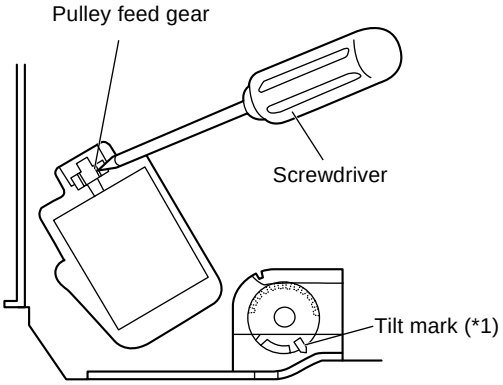
There are two initial setting methods, namely electrical and mechanical.

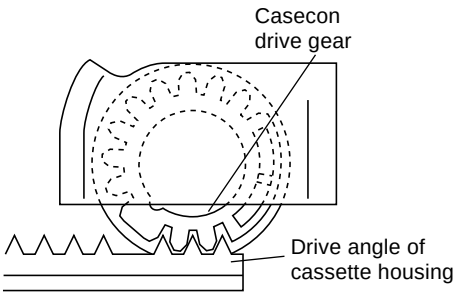
1. Electrical initial setting

So as to perform initial setting of mechanism execute the Step 1 of Installation of cassette housing. After ascertaining the return to the initial setting position (*1) install the cassette housing. (Conditions: When mechanism and PWB have been installed)

2. Mechanical initial setting

Feed the pulley feed gear of loading motor with screw driver. After ascertaining the return to the initial set position (*1) install the cassette housing in the specified position. (This method is applied only for the mechanism.)



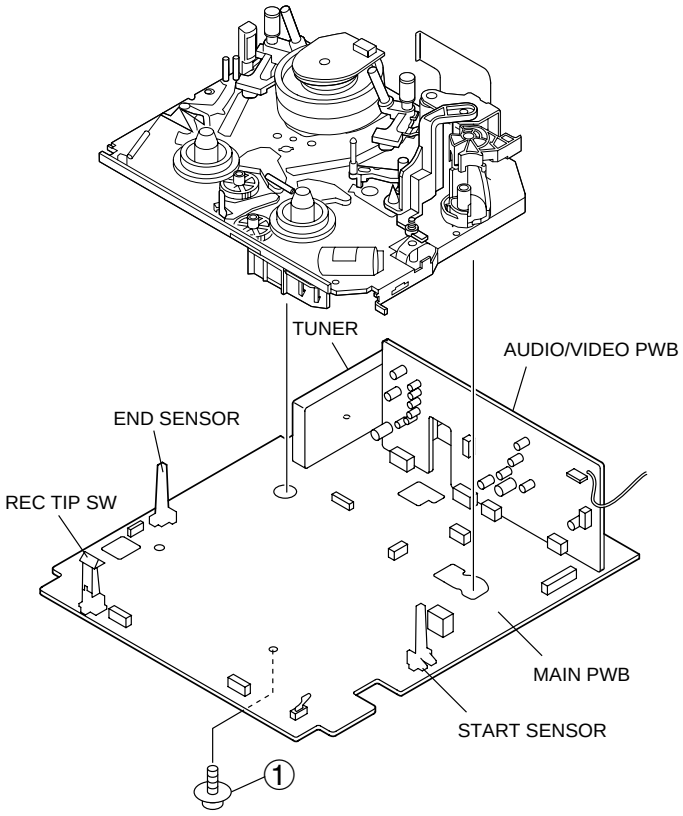


INSTALLING THE MECHANISM ON PWB

Lower vertically the mechanism, paying attention to the mechanism edge, and install the mechanism with due care so that the parts are not damaged. So as to fix the mechanism to the main PWB install 1 screw ①. For other, fix the vicinity of loading motor and solder joint side of main PWB.) Connect again the FFC cable (AA-MH, AD-ME, AH-MH) between the mechanism and the main PWB.

PARTS WHICH NEED PARTICULAR CARE

When installing the mechanism chassis on the PWB unit, take care so as to prevent deformation due to contact of mechanism chassis with REC TIP SW.



8-6. REMOVING AND INSTALLING THE CASSETTE HOUSING

• Removal

1. In the cassette removing mode, remove the cassette.
2. Unplug the power cord.
3. Remove in the following numerical order.
   a) Remove two screws ①.
   b) Slide and pull up the cassette housing control.

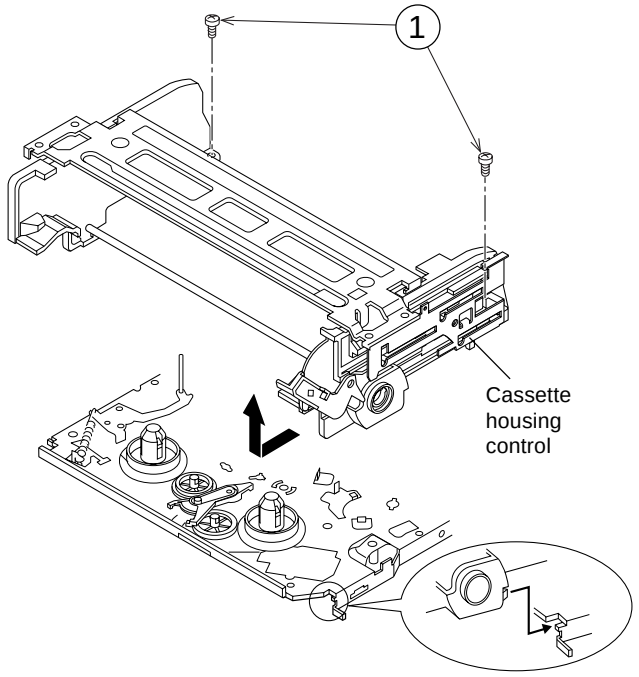


Figure 8-1.

• Reassembly

1. Before installing the cassette housing control, short-circuit between TP5102 and TP5103 provided goes left at VTR display PWB, press the eject button. The casecon drive gear turns and stops when the positioning mark appears. Engage two teeth of casecon drive gear with the three teeth of casecon drive angle gear, and set on the mechanism chassis as shown below.

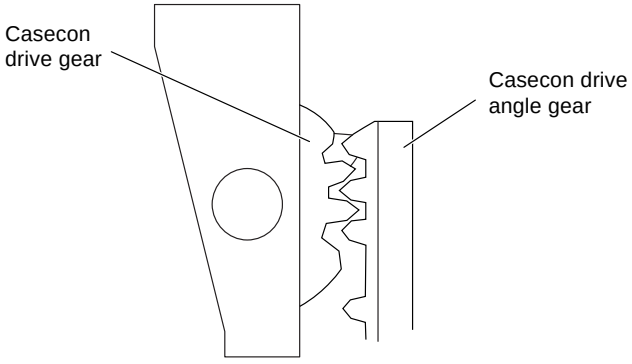


Figure 8-2.

2. Install in the reverse order of removal.
   Power source plug is pulled out after the mounted completion, and it comes.

Notes:

1. When fitting the S/E sensor holder to the cassette controller frame L/R, take care.
2. Misengagement of teeth of casecon drive gear and drive angle gear causes malfunction. (The cassette cannot be set, load and ejection are repeated).
3. In the case when you use the magnet screw driver, never approach the magnet driver to the A/C head, FE head, and drum.
4. When installing or removing, take care so that the cassette housing control and tool do not contact the guide pin or drum.
5. After installing the cassette housing control once perform cassette loading operation.

8-7. TO RUN A TAPE WITHOUT THE CASSETTE HOUSING CONTROL ASSEMBLY

1. Remove the full-surface panel.
2. Short-circuit between TP5102 and TP5103.
3. Plug in the power cord.
4. Turn off the power switch.
   (The pole bases move into U.L.position.)
5. Open the lid of a cassette tape by hand.
6. Hold the lid with two pieces of vinyl tape.
7. Set the cassette tape in the mechanism chassis.
8. Stabilize the cassette tape with a weight (500g) to prevent floating.
9. Turn on the power switch.
10. Perform running test.

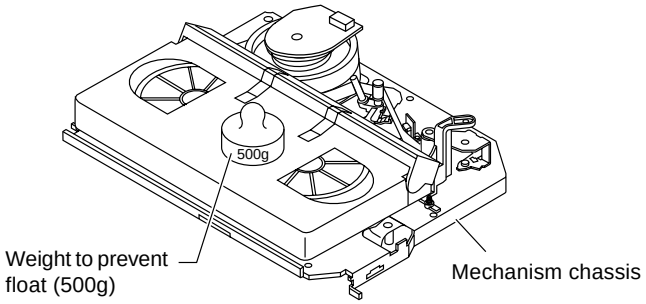


Figure 8-3.

Note:
The weight should not be more than 500g.

To take out the cassette tape.

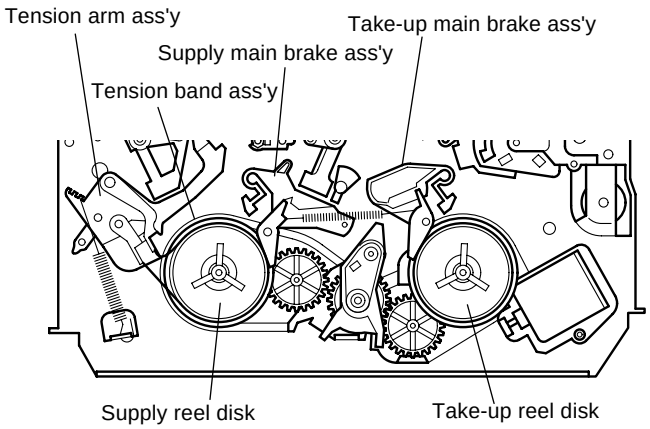
1. Turn off the power switch.
2. Take out the cassette tape.

8-8. REEL DISK REPLACEMENT AND HEIGHT CHECK

- **Removal**

1. Remove the cassette housing control assembly.
2. Pull the tension band out of the tension arm ass'y.
3. Remove the Supply/Take-up main brake ass'y.
4. Open the hook at the top of the reel disk, and remove the reel disk.

Note:
Take care so that the tension band ass'y and main brake ass'y (especially soft brake) are not deformed.



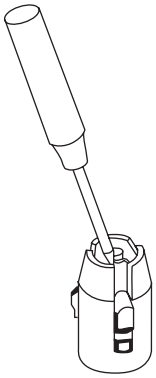


Figure 8-4.

Note:
When the tension band ass'y is pressed in the direction of the arrow for removal, the catch is hard to be deformed.

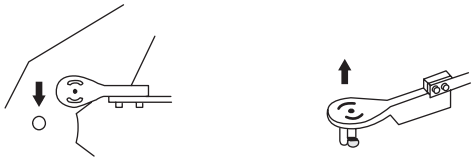


Figure 8-5.

- **Reassembly (Supply reel disk)**

1. Clean the reel disk shaft and apply grease (SC-141) to it.
2. Match the phases of reel disk and reel relay gear, and set the new reel disk.
3. After checking the reel disk height, wind the tension band ass'y around the reel disk, and insert into the hole of tension arm ass'y.
4. Assemble the Supply main brake ass'y.

Notes:
1. When installing the reel disk, take due care so that the tension band ass'y is not deformed and grease does no adhere.
2. Do not damage the Supply main brake ass'y. Be careful so that grease does not adhere to the brake surface.

- **Reassembly (Take-up reel disk)**

1. Clean the reel disk shaft and apply grease (SC-141) to it.
2. Align the phase of the reel disk to that of the reel relay gear and to install a new take-up reel disk onto the shaft.
3. Check the reel disk height and reassemble the take-up main brake ass'y.

Note:
1. Take care so that the Take-up main brake ass'y is not damaged. Take care so that grease does not adhere the brake surface.
2. After reassembly, check the video search rewind back tension (see **8-13**), and check the brake torque (see **8-17**).

- **Height checking and adjustment**

Note:
1. Set the master plane with due care so that it does not contact the drum.
2. When putting the master plane, shift the reverse guide a little in the loading direction. Care must be taken since excessive shift results in damage.

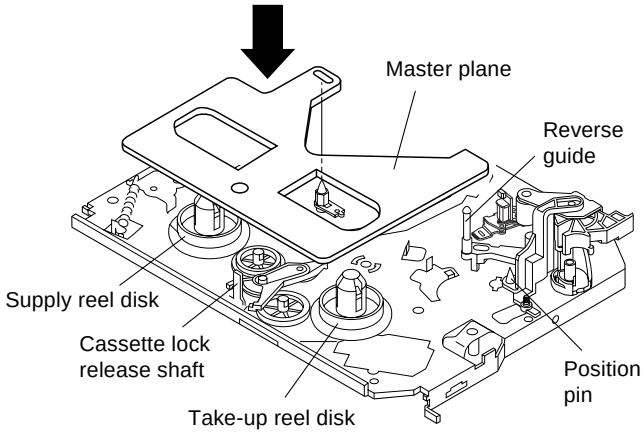


Figure 8-6.

Note:
1. Check that the reel disk is lower than part A but higher than part B. If the height is not correct, readjust the reel disk height by changing the poly-slider washer under the reel disk.

2. Whenever replacing the reel disk, perform the height checking and adjustment.

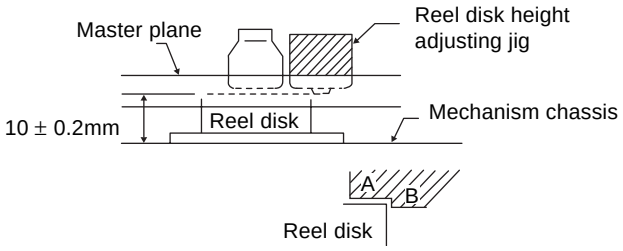


Figure 8-7.

8-9. CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN FAST FORWARD MODE

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**

- **Setting**

1. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.
2. Press the FF button.
3. To calculate the remaining capacity of the play back mode, slowly rotate the supply reel disk, and then shift it into the forward mode.

- **Checking**

1. Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CW direction.
2. Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

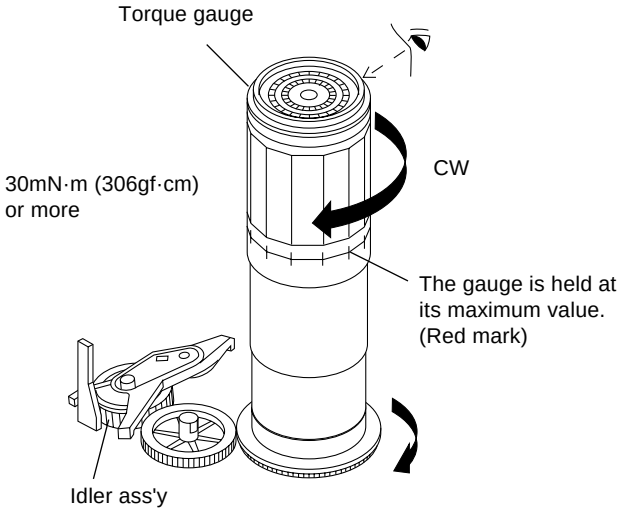


Figure 8-8.

- **Adjustment**

1. If the FF winding-up torque is less than the specified value, clean the capstan D.D. motor pulley, drive belt, and limiter pulley with cleaning liquid, and check again.
2. If the torque is less than the set value, replace the reel belt.

Notes:

1. Hold the torque gauge by hand so that it is not moved.
2. Do not keep the reel disk in lock state. Do not allow long-time measurement.

8-10. CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN REWIND MODE

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**

- **Setting**

1. Set a torque gauge to zero on the scale. Place it on the supply reel disk.
2. Press the rewind button.
3. To calculate the remaining capacity, slowly rotate the take-up reel disk, and then shift it into the rewind mode.

- **Checking**

1. Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CCW direction.
2. Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

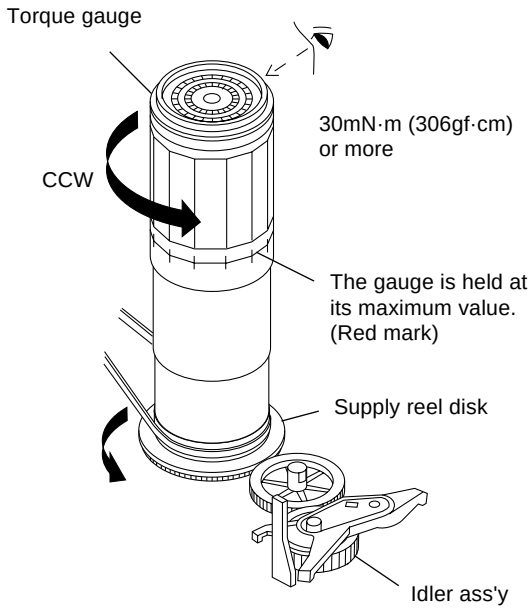


Figure 8-9.

- **Adjustment**

1. If the rewind winding-up torque is less than the specified value, clean the capstan D.D. motor pulley, drive belt, and limiter pulley with cleaning liquid, rewind again, and check the winding-up torque.
2. If the winding-up torque is still out of range, replace the drive belt.

Notes:
1. Hold the torque gauge by hand so that it is not moved.
2. Do not keep the reel disk in lock state. Do not allow long-time measurement.

8-11. CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN RECORD/ PLAYBACK MODE

- **Remove the cassette housing control assembly.**
- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**
- **Turn off the power switch.**
- **Open the cassette torque meter lid, and fix it with tape.**
- **Load the cassette torque meter into the unit.**
- **Put the weight (500g) on the cassette torque meter.**
- **Turn on the power switch.**
- **Press the picture record button, and set EP picture record mode (x3).**

Set value EP6.9 ± 2.5mN·m (70 ± 25gf·cm)

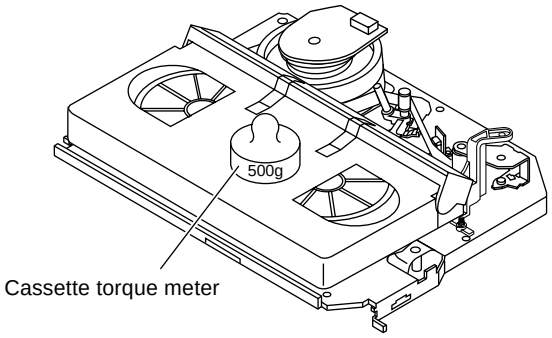


Figure 8-10.

- **Checking**

1. Make sure that value is within the setting 6.9 ± 2.5mN·m (70 ± 25gf·cm).
2. The winding-up torque fluctuates due to variation of rotation torque of limiter pulley ass'y. Read the center value of fluctuation as setting.
3. Set the EP record mode (x3) and make sure that the winding-up torque is within setting.

- **Adjustment**

If the playback winding-up torque is not within the setting, replace the limiter pulley assembly.

Note:
When the torque cassette is set, put a weight (500g) to prevent rise.
When the cassette torque meter is taken out.
Turn off the power switch.

8-12. CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN VIDEO SEARCH REWIND MODE

- **Remove the cassette housing control assembly.**
- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**
- **Setting**

Press the playback button and rewind button to set the video search rewinding mode.

- **Checking**

Place the torque gauge on the supply reel disk, and turn it counterclockwise very slowly (one rotation every 1 to 2 seconds) and check that the torque is within the set value 14.0 ± 3.9mN·m. (144 ± 40gf·cm)

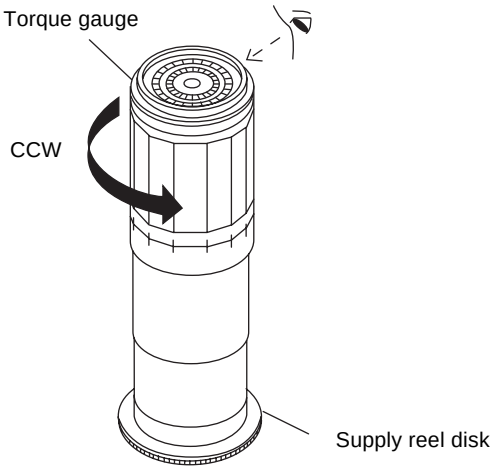


Figure 8-11.

Note:
Surely put the torque gauge on the reel disk to measure. If the torque gauge is raised, accurate measurement is impossible.

- **Adjustment**

If the rewinding playback winding-up torque is not within the setting, replace the limiter pulley assembly.

Note:
The winding-up torque fluctuates due to variation of rotation torque of supply reel disk. Read the center value of fluctuation as setting.

8-13. CHECKING THE VIDEO SEARCH REWIND BACK TENSION

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**

- **Checking**

1. After pressing the play button, press the rewind button, and set the video search rewind mode.
2. Place the torque gauge on the take-up reel disk, and turn it counterclockwise very slowly (one rotation every 2 to 3 seconds) and check that the torque is within the set value 3.4 ± 1.5mN·m (35 ± 15gf·cm).

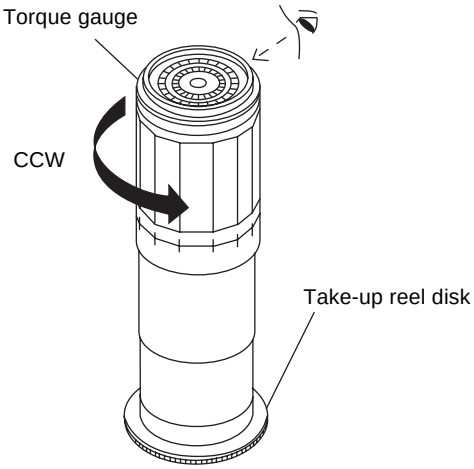


Figure 8-12.

Notes:

Set the torque gauge securely on the take-up reel disk. If it is not secure, the measurement will be incorrect.

8-14. CHECKING THE PINCH ROLLER PRESSURE

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**

- **Checking**

Press the play button to set the playback mode.

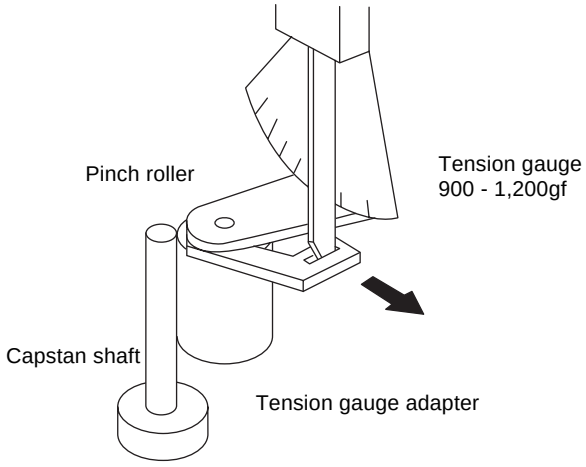


Figure 8-13.

1. Detach the pinch roller from the capstan shaft. Do not separate excessively. Or the pinch lever and pinch double action lever may disengage.
2. Engage the tension gauge adapter with the pinch roller shaft, and pull in the arrow direction.
3. Gradually return the pinch roller, and measure the pulling force when the pinch roller contacts the capstan shaft.
4. Make sure that the measured value is within setting 9.0 N to 11.8 N (900 to 1,200gf).

8-15. CHECKING AND ADJUSTMENT OF TENSION POLE POSITION

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**

- **Turn off the power switch.**

- **Setting**

1. Open the cassette tape (T-120), and fix with tape.
2. Set the cassette tape in loading state.
3. Put the weight (500g) on the cassette tape.
4. Turn on the power switch.
5. Make the adjustment with the beginning of a T-120 tape.

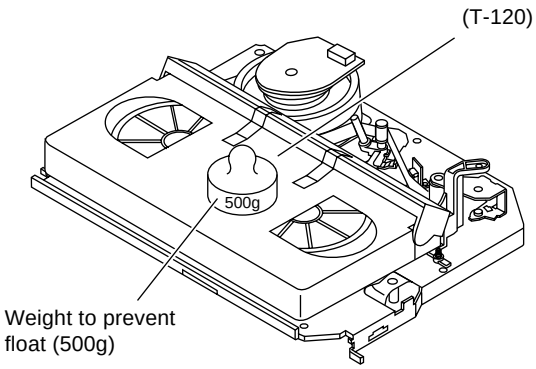
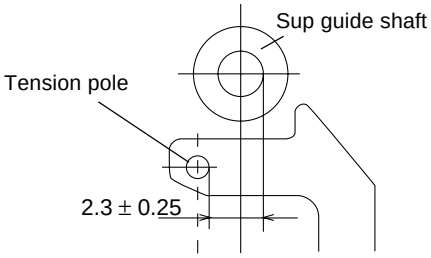


Figure 8-14.

- **Checking**

1. Set a cassette tape, push the REC button to place the unit in the SP record mode. Now check the tension pole position.
2. Visually check to see if the right edge of the tension pole is within the 2.3 ± 0.25 from the right edge of the Sup guide shaft.



Make the adjustment with the beginning of a T-120 tape.

Figure 8-15.

At left side from the center line

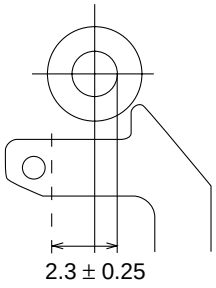


Figure 8-16.

Insert the slotted screwdriver in the tension pole adjuster, and rotate counterclockwise.

At right side from the center line

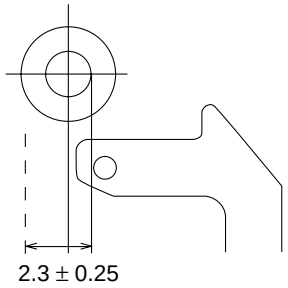


Figure 8-17.

Insert the slotted screwdriver in the tension pole adjuster, and rotate clockwise.

Tension pole adjuster adjusting range

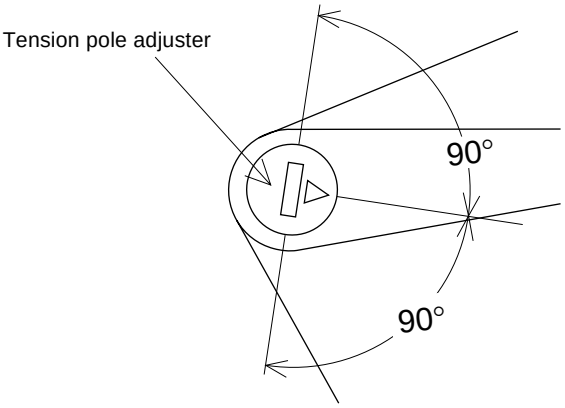


Figure 8-18.

Adjust so that the delta mark of tension pole adjuster is within 90° range (left, right).

8-16. CHECKING AND ADJUSTMENT OF RECORD/PLAYBACK BACK TENSION

- **Remove the cassette housing control assembly.**
- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**
- **Turn off the power switch.**
- **Setting**

1. Open the torque cassette meter and fix with tape.
2. Set the cassette tape in loading state.
3. Put the weight (500g) on the cassette torque meter.
4. Turn on the power switch.

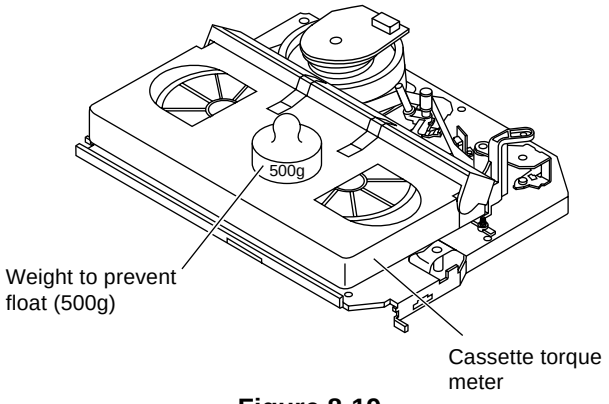


Figure 8-19.

- **Checking**

1. Push the REC button to place the unit in the SP record mode.
2. At this time ascertain that the back tension is within the setting (36.5 to 52g·cm) by seeing the indication of torque cassette meter.

- **Adjustment**

1. If the indication of torque cassette meter is lower than the setting, shift the tension spring engagement to the part A.
2. If the indication of torque cassette meter is higher than the setting, shift the tension spring engagement to the part B.

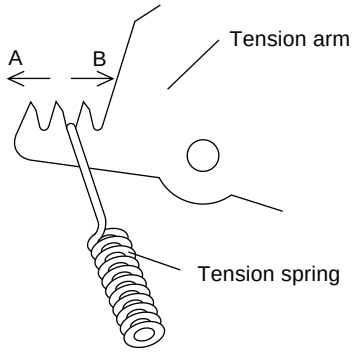
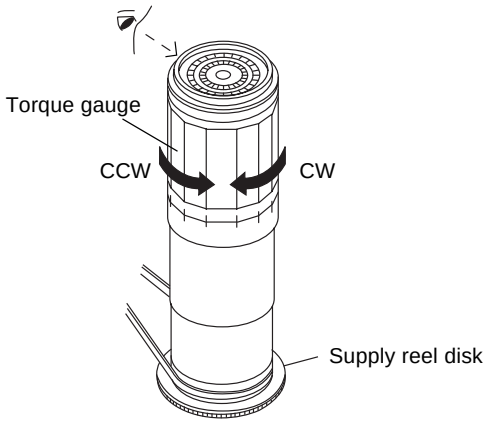


Figure 8-20.

8-17. CHECKING THE BRAKE TORQUE

- **Checking the brake torque at the supply side**



CCW:	2.9~9.8mN·m (30~100gf·cm)
CW:	4.9~13.7mN·m (50~140gf·cm)

Figure 8-21.

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**

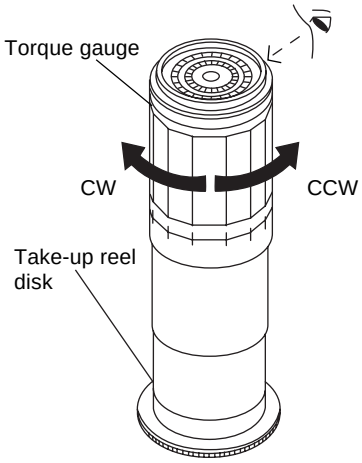
- **Setting**

1. Switch from the FF mode to the STOP mode.
2. Disconnect the power cord.
3. Set a torque gauge to zero on the scale. Place it on the supply reel disk.

- **Checking**

Turn the torque gauge at a rate of about one turn/2 sec in the CW direction/CCW direction with respect to the supply reel disk so that the reel disk and torque gauge pointer rotate at equal speed, and make sure that the value is within the setting (CW direction: 4.9 to 13.7mN·m (50 to 140gf·cm); CCW direction: 2.9 to 9.8mN·m (30 to 100gf·cm).

- **Checking the brake torque at the take-up side**



CCW:	4.9~13.7mN·m (50~140gf·cm)
CW:	3.9~10.8mN·m (40~110gf·cm)

Figure 8-22.

- **Remove the cassette housing control assembly.**

- **After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.**

- **Setting**

1. Switch from the FF mode to the STOP mode.
2. Disconnect the power cord.
3. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.

- **Checking**

1. Turn the torque gauge at a rate of about one turn/2 sec in the CCW direction/CW direction so that the reel disk and torque gauge pointer rotates at equal speed and make sure that the value is within the setting (CCW direction: 4.9 to 13.7mN·m (50 to 140gf·cm), CW direction: 3.9 to 10.8 mN·m (40 to 110gf·cm).

2. Adjustment of the brake torque at the supply side and the take-up side

- Unless the supply side brake torque or take-up side brake torque is within the setting, clean the felt surface of reel disk (supply, take-up) brake lever, check again the brake torque.
- If value cannot be set within the setting yet, replace the main brake ass'y or main brake spring.

8-18. REPLACEMENT OF A/C (AUDIO/CONTROL) HEAD

1. Remove the cassette housing control assembly.
2. In unloading state unplug the power cord.

- **Removal**

1. Remove the screws ①②③, Azimuth screw, Tilt screw.
2. Unsolder the PWB fitted to the A/C head.

Notes:

1. When replacing, never touch the head. If you touched, clean with the cleaning liquid.
2. When removing the screw ③, take care so that the spring may out.

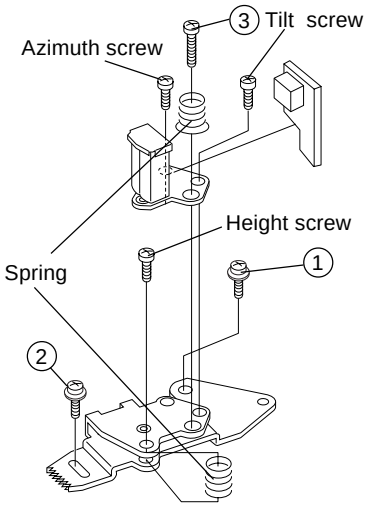


Figure 8-23.

- **Replacement**

1. Solder the removed PWB to the new head assembly.
2. Adjust the height from the A/C head arm (lower surface) to the A/C head plate to 10.8mm with slide calipers. (3 places of azimuth screw section, tilt screw section and A/C head front section) (See the figure below.)

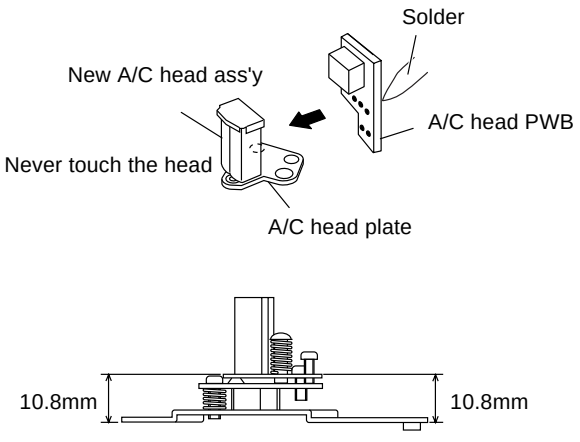


Figure 8-24.

3. Align the left end of gear of A/C head arm with the punched mark of chassis, tentatively tighten the screws ① and ② so as to ensure smooth motion of A/C head arm. Tentative tightening torque must be 0.15 to 0.20 N·m (1.5 to 2.0kgf·cm).

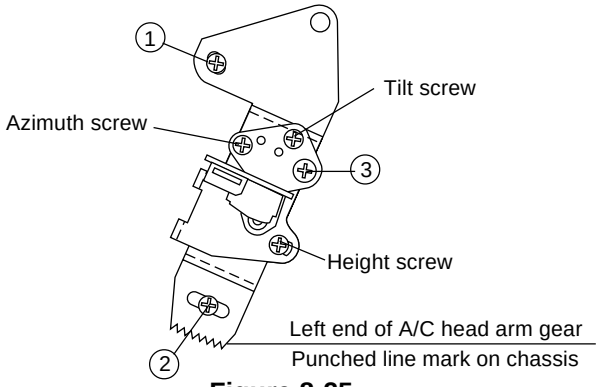


Figure 8-25.

Note:

1. If the screws ① and ② are tighten tentatively too loose, the azimuth and height of A/C head may change when they are finally tightened. Therefore care must be taken.
2. After completion of A/C head be sure to adjust tape running. (Execute the running adjustment by the method described in **8-21**.)

8-19. A/C HEAD HEIGHT ROUGH ADJUSTMENT

- **Setting**

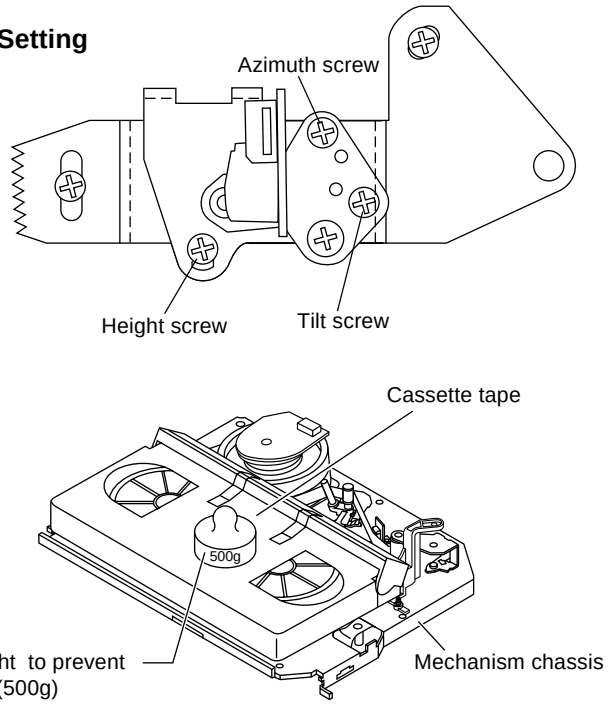


Figure 8-26.

1. Turn off the power switch.
2. Set the cassette tape in the unit.
3. Turn on the power switch.
4. Press the PLAY button to put the unit in the playback mode.
5. Roughly adjust the height of the A/C head by turning the height screw until the tape is in the position shown below.

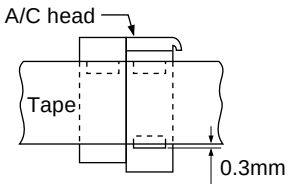


Figure 8-27.

- **Adjustment**

Adjust the height screw visually so that the control head is visible 0.3mm below the bottom of the tape.

8-20. HEIGHT ADJUSTMENT OF REVERSE GUIDE

1. Adjust the height from the mechanism chassis to the reverse guide lower flange to 13.38 mm, using the reverse guide height adjustment jig, in tape loading state. (Refer to Figure 8-28 (a) (b).)

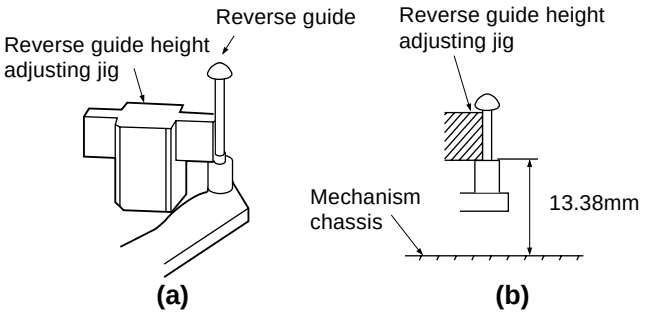


Figure 8-28.

2. Rotate counterclockwise the reverse guide height adjustment nut 1/10 turn. (For height adjustment use the reverse guide height adjustment box driver (JiGDRiVER 11055)).

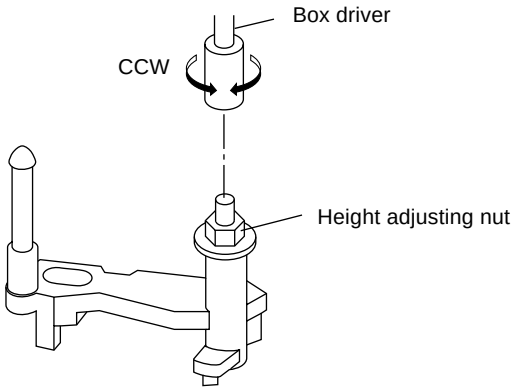
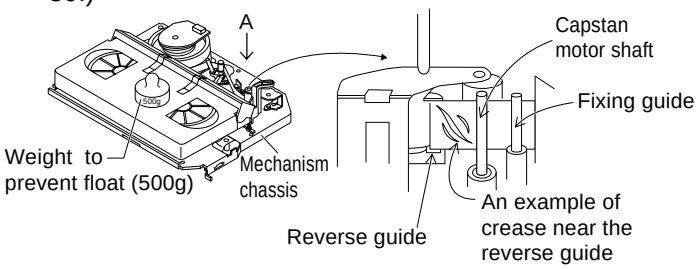


Figure 8-29.

3. Set the tape, and check for tape crease near the reverse guide in the playback mode.
   If crease is found, turn the reverse guide adjustment nut to remove crease. (As for crease check refer to Figure 8-30.)



* Check for crease from the A direction.

Figure 8-30.

8-21. ADJUSTMENT OF TAPE DRIVE TRAIN

1. Tape run rough adjustment
   ① Remove the cassette housing control assembly.
   ② After short-circuiting between TP5102 and TP5103 provided goes left at VTR display PWB, plug in the power cord.
   ③ Check and adjust the position of the tension pole. (See **8-15.**)
   ④ Check and adjust the video search rewind back tension. (See **8-13**.)
   ⑤ Connect the oscilloscope to the test point for PB CHROMA signal output (TP1201). Set the synchronism of the oscilloscope to EXT. The PB CHROMA signal is to be triggered by the head switching pulse (TP1202).
   ⑥ Set the alignment tape (VROATSV) to play. (Put a 500g weight on the cassette tape to prevent lift of cassette tape.)

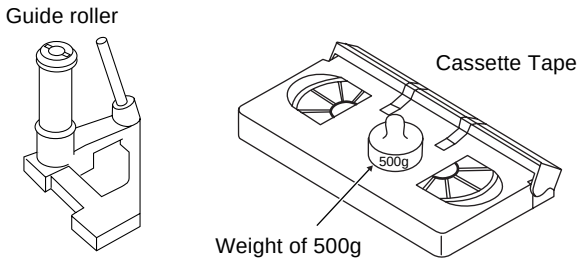


Figure 8-31.

   ⑦ Press the tracking button (+), (–) and change the ATR signal waveform from max to min and from min to max. At this time make sure that the ATR signal waveform changes nearly parallel.
   ⑧ Unless the ATR signal waveform changes nearly parallel, adjust the height of supply side and take-up side guide roller so that the envelope waveform changes nearly parallel. (For ATR signal adjustment procedure refer to Figure 8-35.)
   ⑨ Turn the tilt screw to remove the tape crease at the fixing guide flange.
   Playback the tape and check for tape crease at the fixing guide flange.
   (1) If there is no tape crease
   Turn the tilt screw clockwise so that tape crease appears once at the flange, and then return the tilt screw so that the crease disappears.
   (2) If there is tape crease
   Turn counterclockwise the tilt screw so that the tape crease disappears.
   (Reference) If the tilt screw is turned clockwise crease appears at the lower flange.

Notes:
1. Previously set the tracking control in the center position, and adjust the ATR signal waveform to maximum with X value adjustment nut. Thereby the tape run rough adjustment is facilitated.
2. Especially the outlet side ATR signal waveform must have higher flatness.

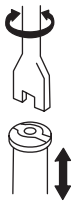


Figure 8-32.

2. Adjustment of A/C head height and azimuth
   ① Perform the initial setting of A/C head position by the method stated in "**8-18** Replacement 3".
   ② Connect the oscilloscope to the audio output terminal.
   ③ Using the alignment tape in which 1 kHz linear audio signal has been recorded, adjust the height screw so as to get max audio output.
   ④ Using the alignment tape in which 7 kHz linear audio signal has been recorded, adjust the azimuth screw so as to get max audio output.
   ⑤ The adjustment of ③ and ④ twice or three times repeat, and finally adjust ④.

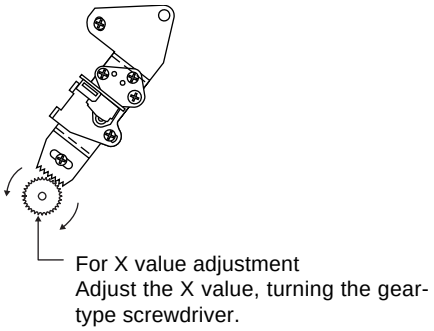
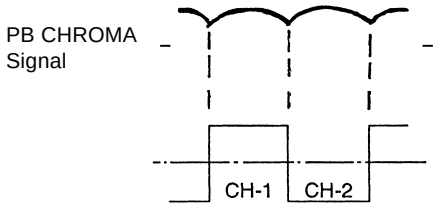


Figure 8-33.

3. Tape run adjustment
   ① Connect the oscilloscope to PB CHROMA signal output test point, set oscilloscope sync to EXT, trigger-input the PB CHROMA signal (head switching pulse).
   ② Rough adjustment of X value
   Tentatively fix A/C head arm screws ① and ② by the method described in **8-18** "Replacement 3".
   Playback the alignment tape (VROATSV) and shortcircuit between TP5101 and TP5103. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set.
   Move the A/C head with the X value adjustment gear driver (JiGDRiVER-6) by the method shown in Figure 8-33, and adjust the A/C head so as to get the maximum ATR signal waveform. (Note: When the A/C head is adjusted, adjust so that the maximum ATR signal waveform is obtained nearest the position of initial setting made in **8-18**.)

③ Next, press the tracking button (+), (–) and change the ATR signal waveform from max to min and from min to max. At this time adjust the height of supply and take-up side guide roller with the adjustment driver (JiGDRiVER-4) so that the ATR signal waveform changes nearly parallel.
④ If the tape is lifted or sunk from the helical lead surface, the PB CHROMA signal waveform appears as shown in Figure 8-35.
⑤ Press the tracking button (+), (–) and make sure that the ATR signal waveform changes nearly parallel.
⑥ Finally check tape crease near the reverse guide. If tape crease is found, remove it as stated in **8-20** "HEIGHT ADJUSTMENT OF REVERSE GUIDE" item 3.



Head switching pulse

Figure 8-34.

4. A/C head X value adjustment
① Tentatively fix A/C head arm screws ① and ② by the method described in **8-18** "Replacement 3".
② Playback the alignment tape (VROEFZCS or VROEFZHS), and shortcircuit between TP5101 and TP5103. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set.

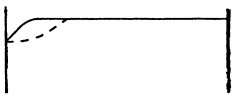
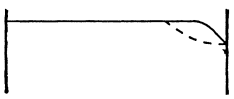
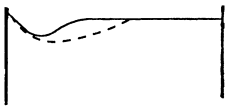
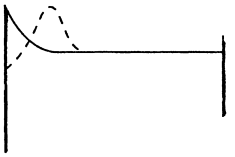
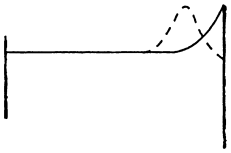
	When the tape is above the helical lead.		When the tape is below the helical lead.	
	Supply side	Take-up side	Supply side	Take-up side
				
				
Adjustment	Supply side guide roller rotated in clockwise direction (lowers guide roller) to flatten ATR signal.	Take-up side guide roller rotated in clockwise direction (lowers guide roller) to flatten ATR signal.	Supply side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The supply side guide roller is then rotated in the clockwise direction to flatten the ATR signal.	Take-up side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The take-up side guide roller is then rotated in the clockwise direction to flatten the ATR signal.

Figure 8-35.

③ Move the A/C head with the X value adjustment gear driver by the method shown in Figure 8-33, and adjust the A/C head so as to get the maximum ATR signal waveform. (Note: At this time adjust so as to get the maximum ATR signal waveform nearest the A/C head position which has been set in case of X value rough adjustment as stated in **8-21**, 3- ②.)
④ Tighten finally the screws ① and ②. Be sure to tighten at first the screw ① and then the screw ②. Final tightening torque is 0.6N·m (If the screw ② is tightened first, the X value may deviate.)
⑤ Adjust the playback switching point (Refer to the electric adjustment method.)
⑥ Playback the self-picture-recorded tape, and check the flatness of ATR signal waveform and sound.

Notes:
When the A/C head X value adjustment is performed, be sure to perform at first X value rough adjustment (refer to **8-21**, 3-②).

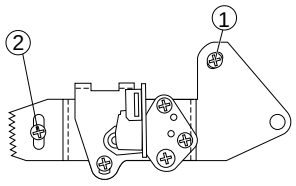


Figure 8-36.

8-22. REPLACEMENT OF THE CAPSTAN D.D. (DIRECT DRIVE) MOTOR

- Remove the mechanism from the main PWB (refer to **8-4** item 1 When removing the mechanism from the main PWB).

- **Removal (Follow the order of indicated numbers.)**

1. Remove the reel belt ①.
2. Remove the slow brake lever ②.
3. Remove the three screws ③.

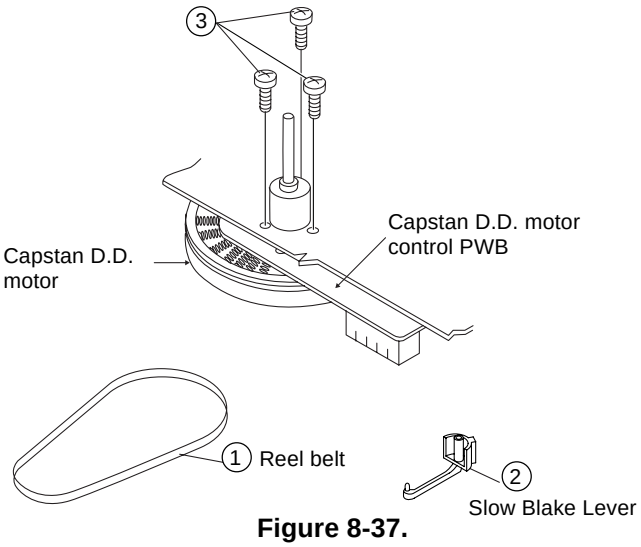


Figure 8-37.

- **Reassembly**

1. Taking care so that the capstan shaft does not contact the mechanism chassis, set its position on the mechanism chassis, and then install with the three screws ③.
2. Install the slow brake lever ②.
3. Install the reel belt ①.

Notes:

1. Before installing the capstan D.D. motor, confirm whether an acetate tape (ZTAPEN120020E) is drawn on the back of mechanism chassis.

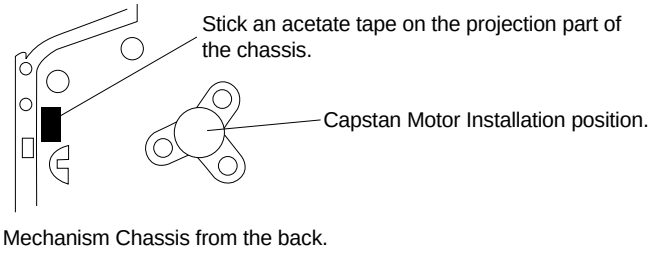

Stick an acetate tape on the projection part of the chassis.
Capstan Motor Installation position.
Mechanism Chassis from the back.

Figure 8-38.

2. After installing the capstan D.D. motor, be sure to rotate the capstan D.D. motor and check the movement.
3. Set the tape, and check for the tape crease near the reverse guide in the playback mode. Adjust the A/C head and azimuth as stated in **8-21** item 2. If crease is found, adjust as stated in **8-21** item 3.

8-23. REPLACEMENT OF DRUM D.D. MOTOR

1. Set the ejection mode.
2. Withdraw the main power plug from the socket.

- **Removal (Perform in numerical order.)**

1. Disconnect the FFC cable ①.
2. Unscrew the D.D. stator assembly fixing screws ②.
3. Take out the D.D. stator assembly ③.
4. Unscrew the D.D. rotor assembly fixing screws ④.
5. Take out the D.D. rotor assembly ⑤.

Notes:

1. In removing the D.D. stator assembly, part of the drum earth spring pops out of the pre-load collar. Be careful not to lose it.
2. Install, so that the D.D. rotor ass'y and upper drum ass'y mounting direction check holes align. (Align the upper drum dent with the rotor hole.)
3. Be careful not to damage the upper drum or the video head.
4. Protect the hole elements from shock due to contact with D.D. stator or D.D. rotor ass'y.
5. After installation adjust the playback switching point for adjustment of servo circuit.

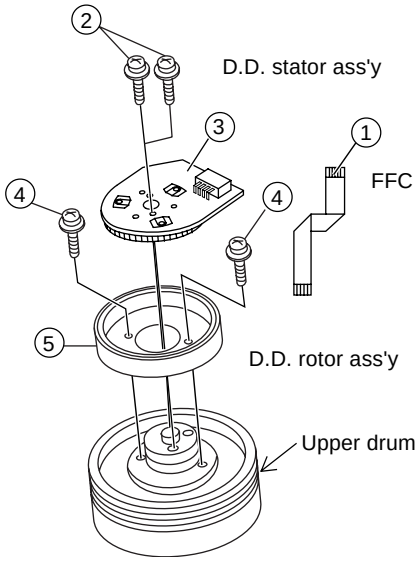


Figure 8-39.

8-24. REPLACING THE UPPER AND LOWER DRUM ASSEMBLY

• Replacement (Perform in the numerical order)
① Remove the motor as stated in **8-23** D.D. motor replacement.
② Remove the drum earth brush ass'y ②.
③ Remove the drum base ③ from the upper and lower drum assembly ①.

[Cares when replacing the drum]
1. Be careful so that the drum earth brush is not lost.
2. Do not touch directly the drum surface.
3. Fit gently the screwdriver to the screws.
4. Since the drum assembly is an extremely precise assembly, it must be handled with utmost care.
5. Make sure that the drum surface is free from dust, dirt and foreign substances.
6. After replacing the drum be sure to perform the tape running adjustment.
   After that, perform also the electrical adjustment.
   • Playback switching point adjustment
   • X-position adjustment and check
   • Standard and x-3 slow tracking adjustment
7. After replacing the drum clean the drum.

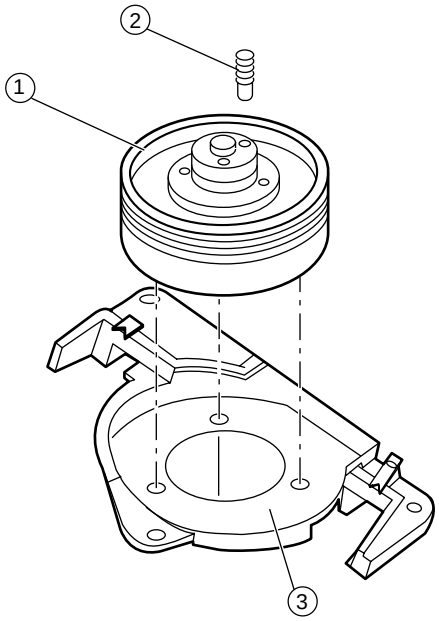


Figure 8-40.

8-25. ASSEMBLING OF PHASE MATCHING MECHANISM COMPONENTS

- **Assemble the phase matching mechanism components in the following order.**

1. Assemble the pinch roller assembly and pinch drive cam.
2. Mounting the shifter (on the back of the mechanism chassis).
3. Mounting the master cam (on the back of the mechanism chassis).
4. Assemble the connection gear, slow brake and loading motor parts.

• PINCH DRIVE CAM AND PINCH ROLLER ASSEMBLING METHOD.

(Place the following parts in position in numerical order.)
(1)Reverse drive lever ①
(2)Reverse guide spring ②
(3)Reverse guide lever ass'y ③
(4)Reverse guide height adjusting nut ④
(5)Pinch drive cam ⑤
(6)Pinch roller ass'y ⑥
(7)Open lever ⑦

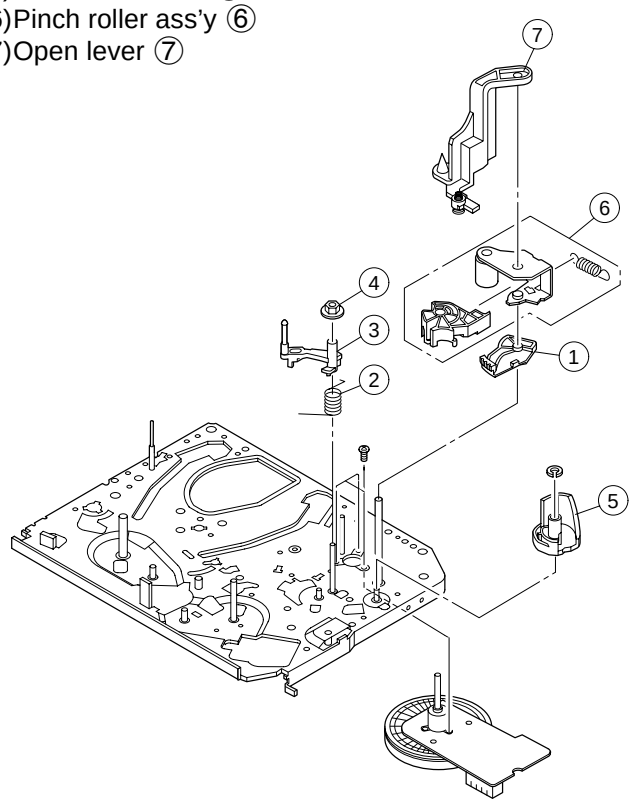


Figure 8-41.

①Insert Reverse Guide Lever Ass'y

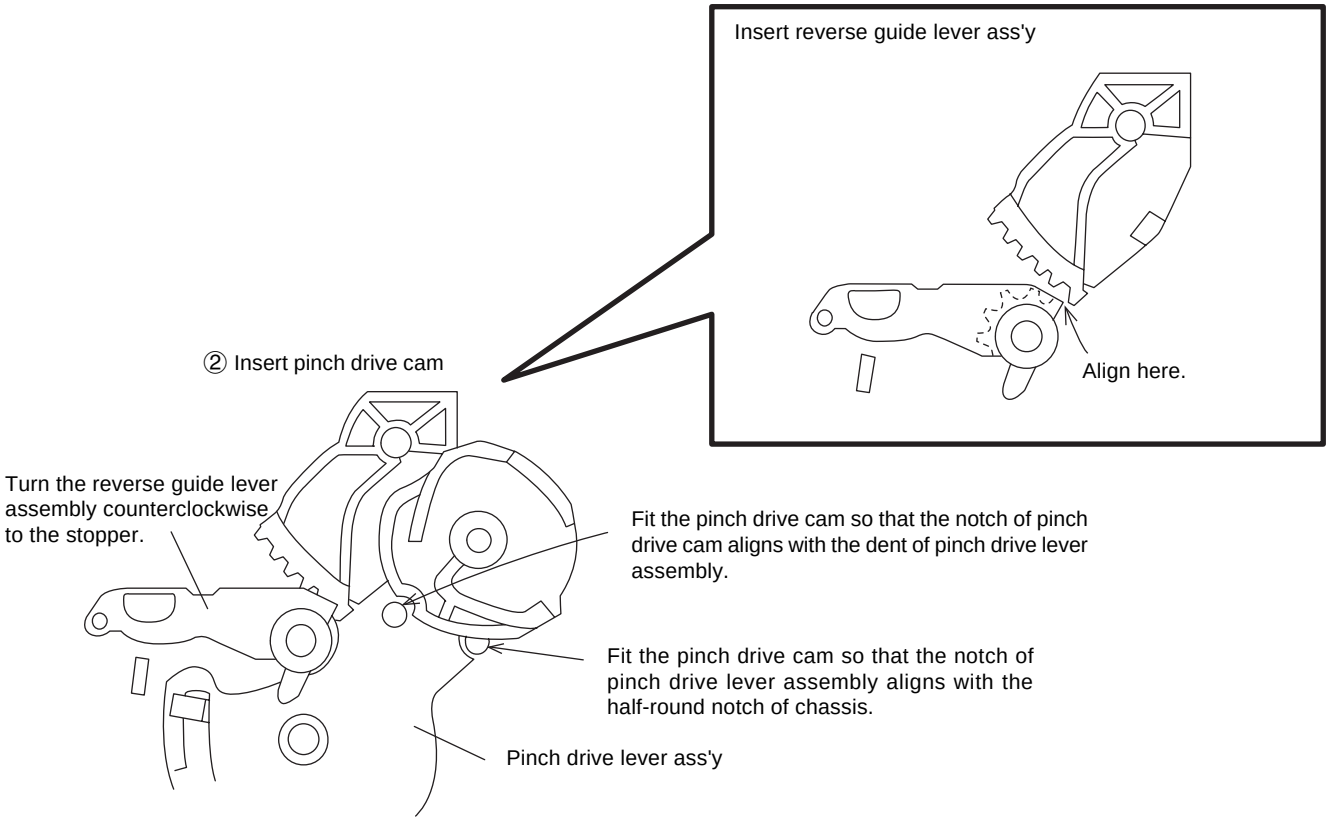

Insert reverse guide lever ass'y
Align here.
② Insert pinch drive cam
Turn the reverse guide lever assembly counterclockwise to the stopper.
Fit the pinch drive cam so that the notch of pinch drive cam aligns with the dent of pinch drive lever assembly.
Fit the pinch drive cam so that the notch of pinch drive lever assembly aligns with the half-round notch of chassis.
Pinch drive lever ass'y

Figure 8-42-1.

②Insert Pinch Roller/Pinch Double Action Lever Ass'y.

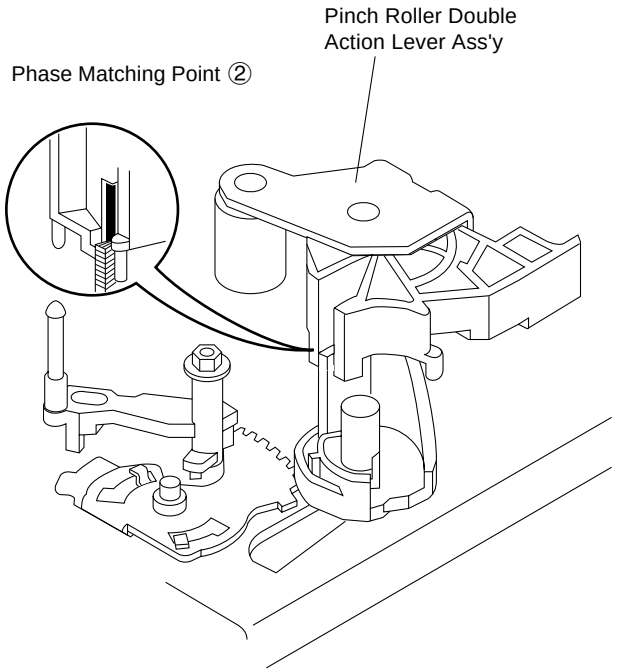


Figure 8-42-2.

③Insert Open Lever.

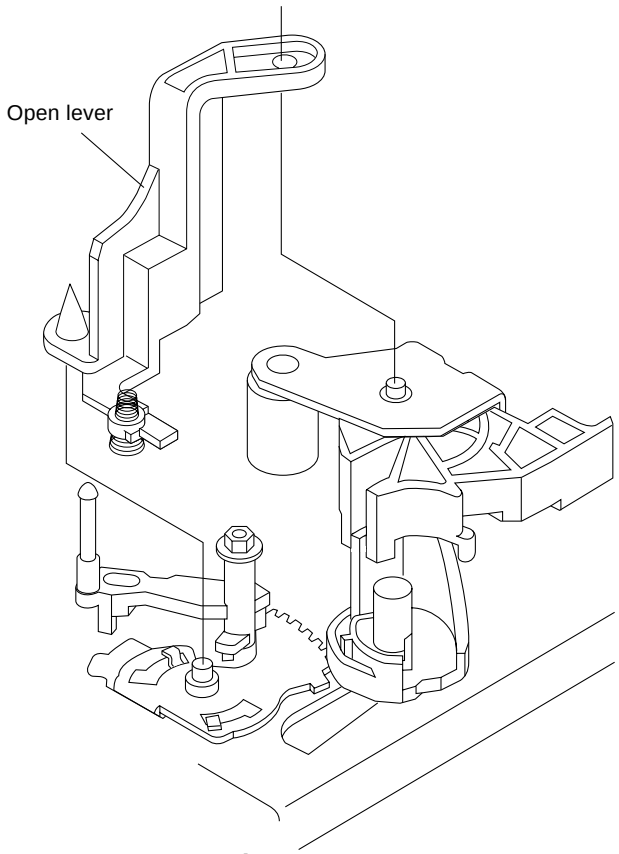
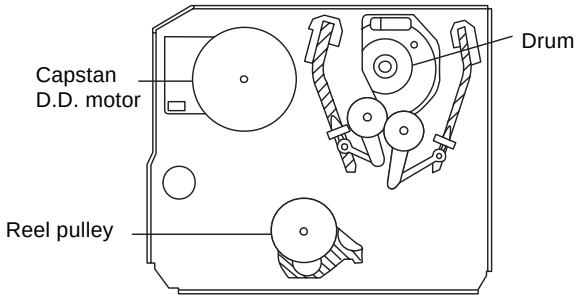


Figure 8-42-3.

8-26. INSTALLING THE SHIFTER



(Bottom side of mechanism chassis)

Figure 8-43.

1. Make sure that the loading gear is at the Phase-Matching point ① as shown below.
2. Install, paying attention to insert point ⑤ and release point ③.
3. For the phase matching at the insert point ①, see the Phase-Matching point ② as shown below.
4. Finally fix the inserts ① and ④.

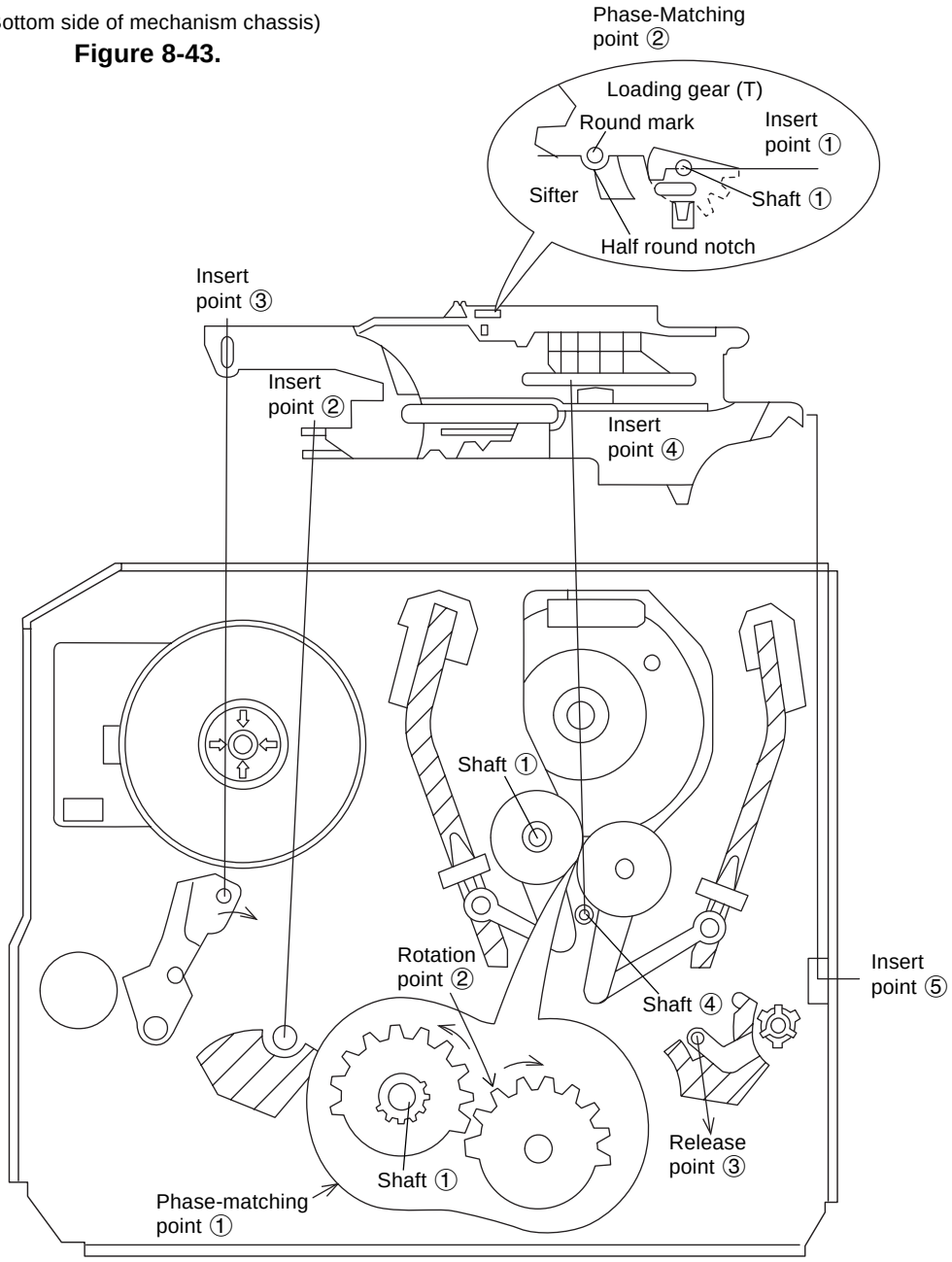


Figure 8-44.

8-27. INSTALLING THE MASTER CAM (AT REAR SIDE OF MECHANISM CHASSIS)

1. Make sure beforehand that the shifter is at the point as shown below.
2. Place the master cam in the position as shown below.

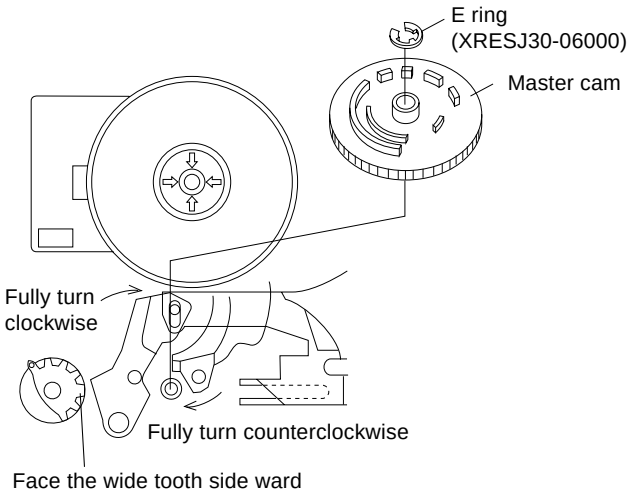


Figure 8-45-1.

Note:
See the figure below for the phase matching between the master cam and the casecon drive gear.

3. Finally fix with the E ring.

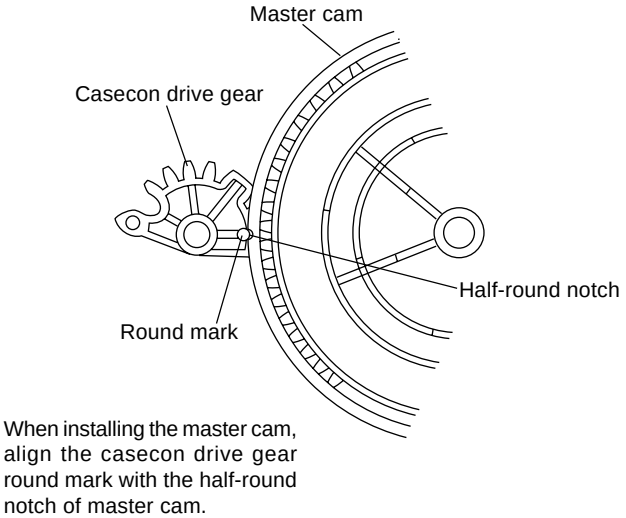

Master cam
Casecon drive gear
Half-round notch
Round mark
When installing the master cam, align the casecon drive gear round mark with the half-round notch of master cam.

Figure 8-45-2.

8-28. REPLACEMENT OF LOADING MOTOR

- **Removal**

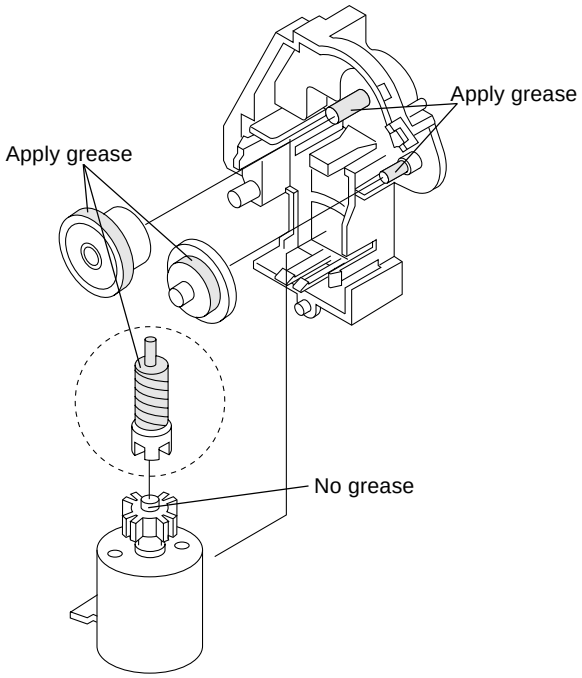


Figure 8-46.

- **Replacement**

Remove the loading motor, and install the replacement loading motor as shown below.

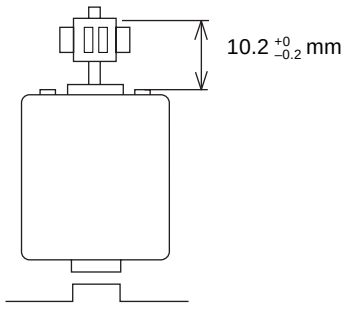


Figure 8-47.

The loading motor pressing-in must be less than 14.7 N (1,500 gf).
Adjust the distance between motor and pulley to 10.2 $^{+0}_{-0.2}$ mm).

8-29. ASSEMBLY OF CASSETTE HOUSING

1. Drive Gear and R Drive angle ass'y

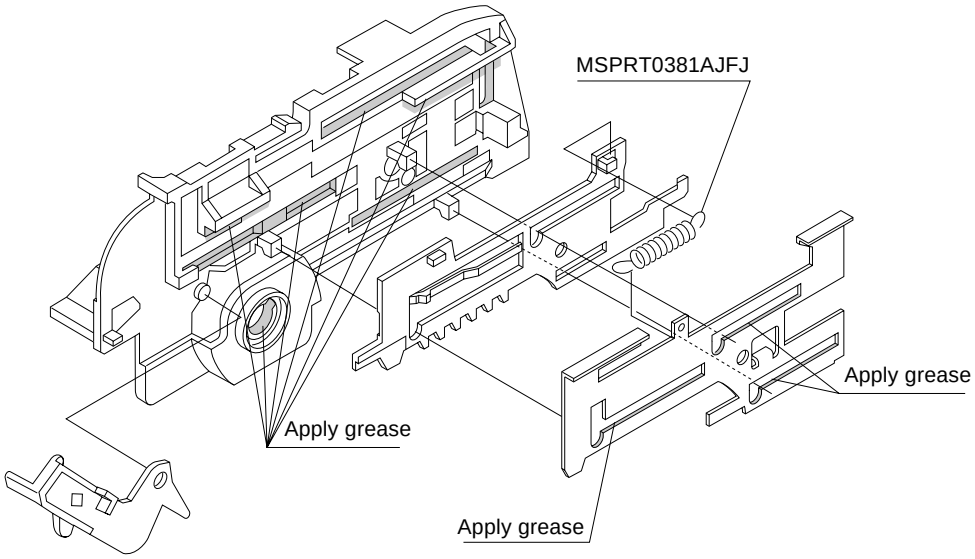


Figure 8-48.

2. Synchro Gear, Drive Gear L and Drive Gear R

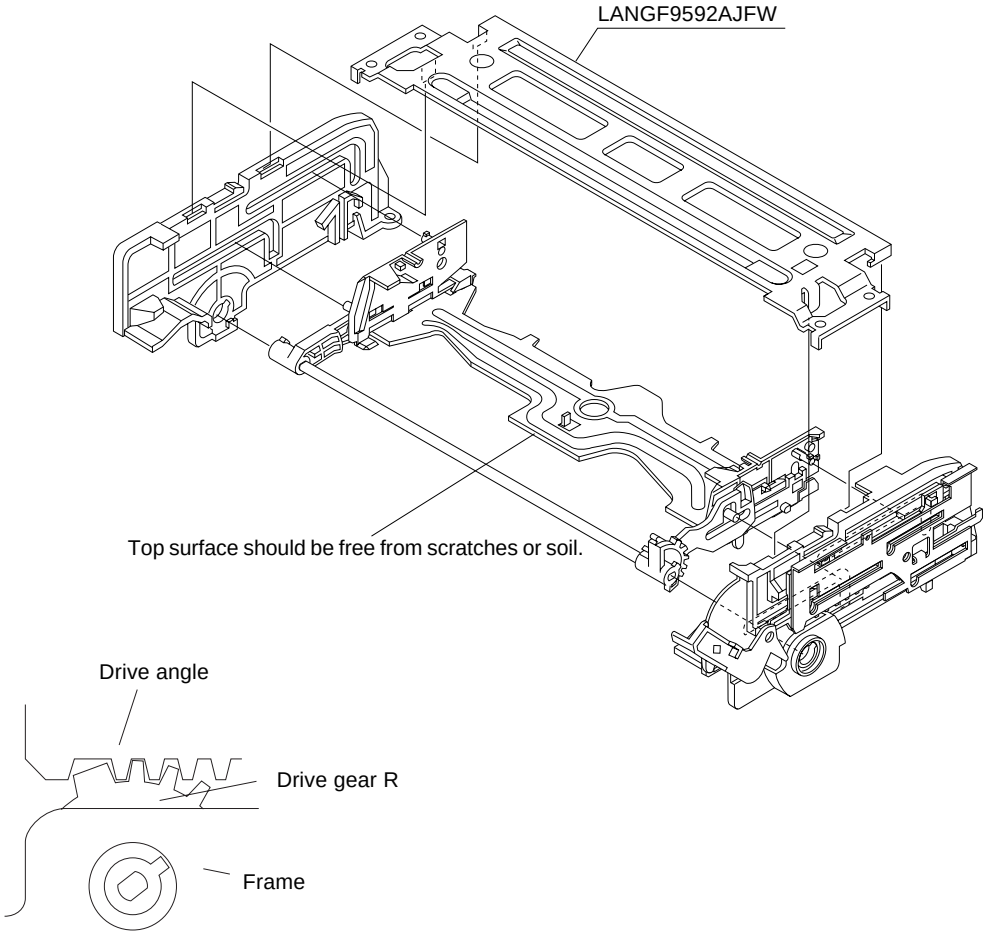
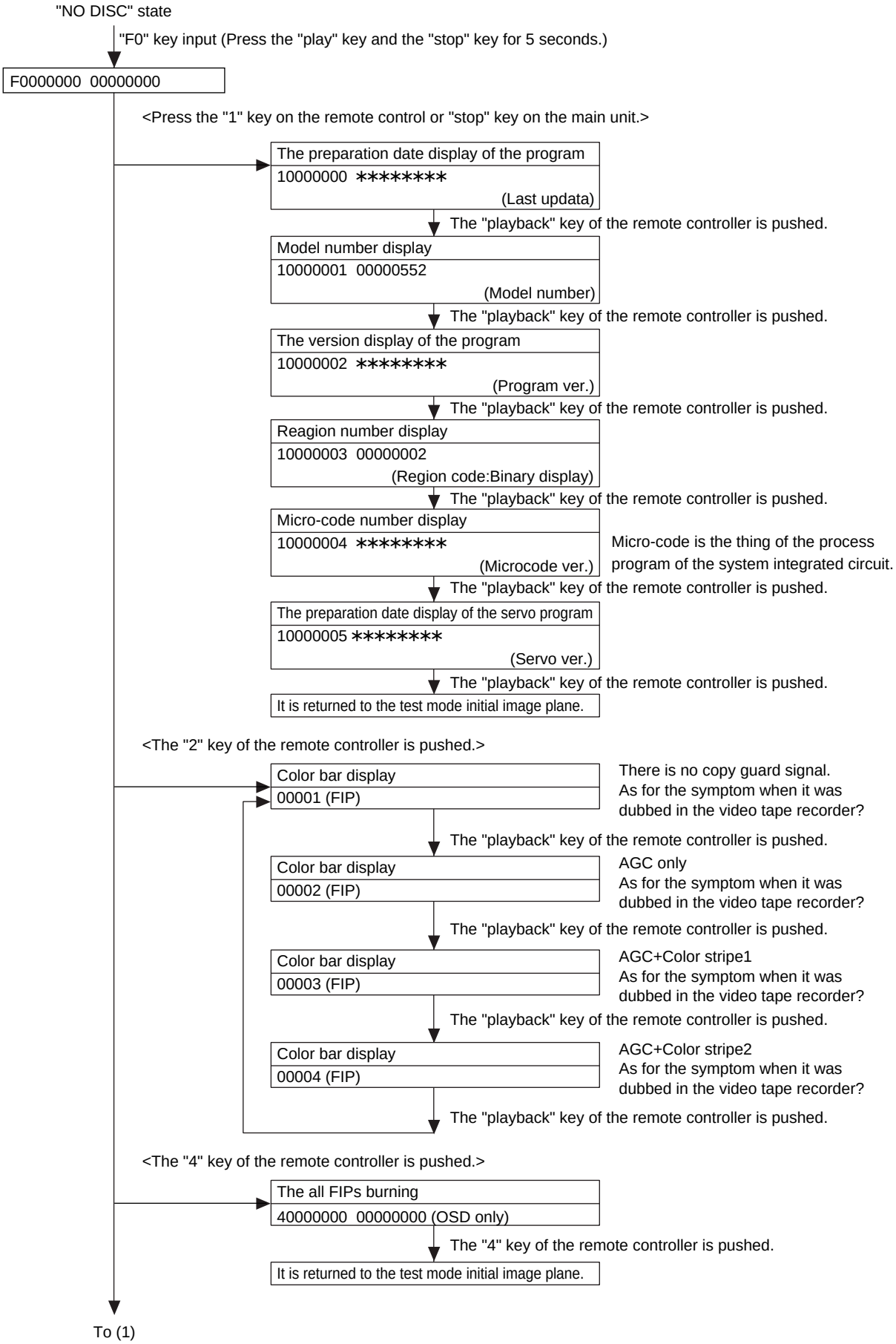
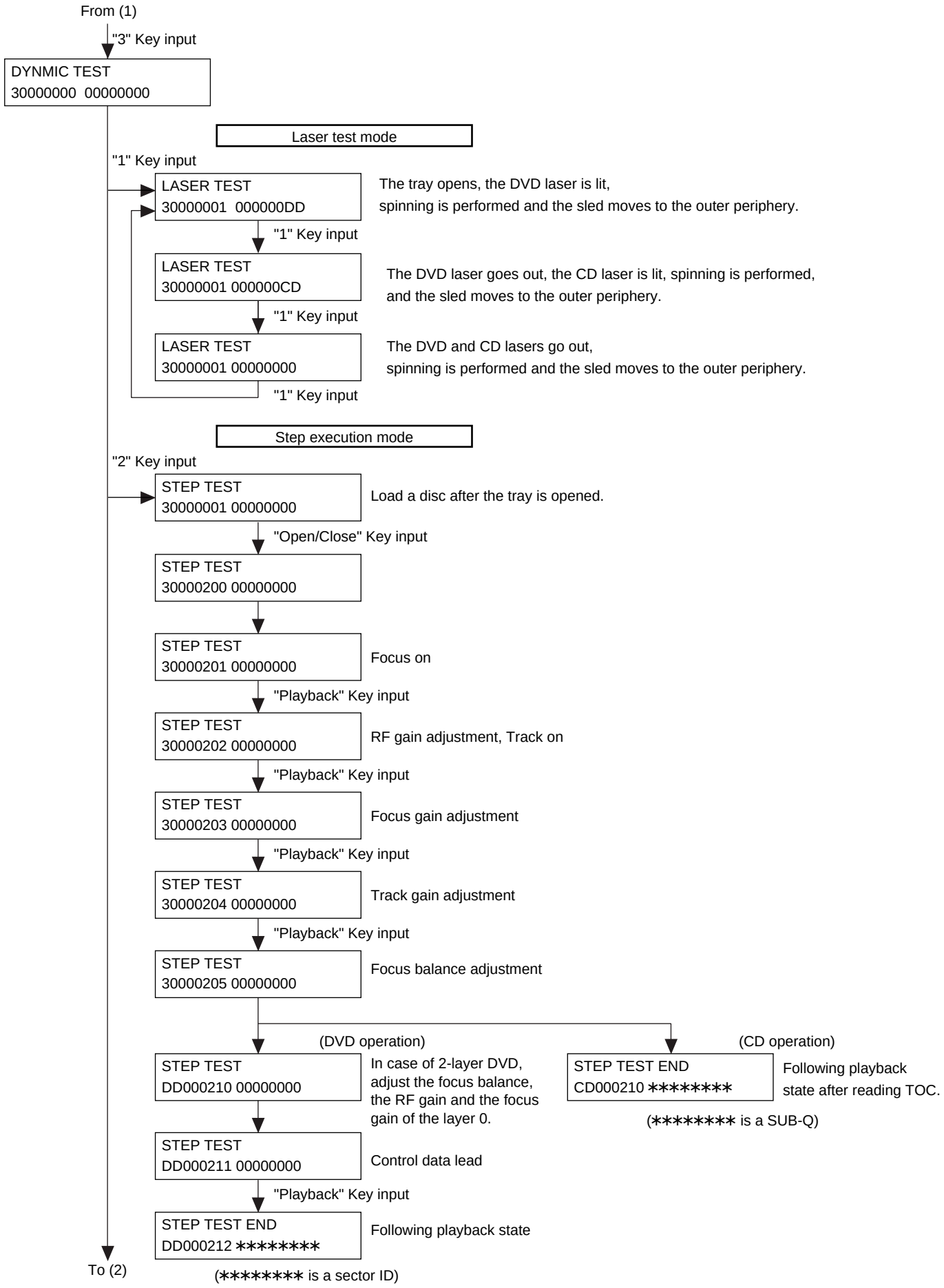
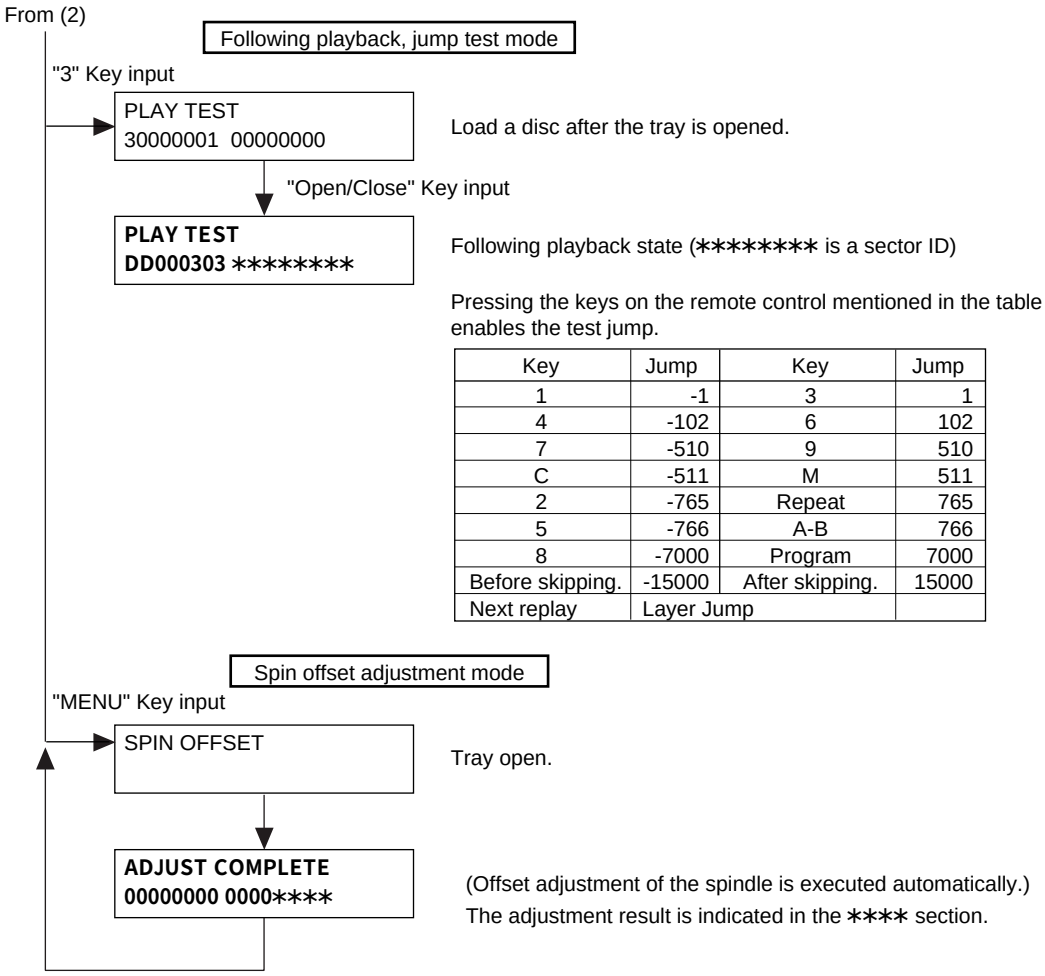


Figure 8-49.

9. TEST MODE


"NO DISC" state
"F0" key input (Press the "play" key and the "stop" key for 5 seconds.)
F0000000 00000000
<Press the "1" key on the remote control or "stop" key on the main unit.>
The preparation date display of the program
10000000 ********
(Last updata)
The "playback" key of the remote controller is pushed.
Model number display
10000001 00000552
(Model number)
The "playback" key of the remote controller is pushed.
The version display of the program
10000002 ********
(Program ver.)
The "playback" key of the remote controller is pushed.
Reagion number display
10000003 00000002
(Region code:Binary display)
The "playback" key of the remote controller is pushed.
Micro-code number display
10000004 ********
(Microcode ver.)
Micro-code is the thing of the process program of the system integrated circuit.
The "playback" key of the remote controller is pushed.
The preparation date display of the servo program
10000005 ********
(Servo ver.)
The "playback" key of the remote controller is pushed.
It is returned to the test mode initial image plane.
<The "2" key of the remote controller is pushed.>
Color bar display
00001 (FIP)
There is no copy guard signal.
As for the symptom when it was dubbed in the video tape recorder?
The "playback" key of the remote controller is pushed.
Color bar display
00002 (FIP)
AGC only
As for the symptom when it was dubbed in the video tape recorder?
The "playback" key of the remote controller is pushed.
Color bar display
00003 (FIP)
AGC+Color stripe1
As for the symptom when it was dubbed in the video tape recorder?
The "playback" key of the remote controller is pushed.
Color bar display
00004 (FIP)
AGC+Color stripe2
As for the symptom when it was dubbed in the video tape recorder?
The "playback" key of the remote controller is pushed.
<The "4" key of the remote controller is pushed.>
The all FIPs burning
40000000 00000000 (OSD only)
The "4" key of the remote controller is pushed.
It is returned to the test mode initial image plane.
To (1)


From (1)
"3" Key input
DYNMIC TEST
30000000 00000000
Laser test mode
"1" Key input
LASER TEST
30000001 000000DD
The tray opens, the DVD laser is lit,
spinning is performed and the sled moves to the outer periphery.
"1" Key input
LASER TEST
30000001 000000CD
The DVD laser goes out, the CD laser is lit, spinning is performed,
and the sled moves to the outer periphery.
"1" Key input
LASER TEST
30000001 00000000
The DVD and CD lasers go out,
spinning is performed and the sled moves to the outer periphery.
"1" Key input
Step execution mode
"2" Key input
STEP TEST
30000001 00000000
Load a disc after the tray is opened.
"Open/Close" Key input
STEP TEST
30000200 00000000
STEP TEST
30000201 00000000
Focus on
"Playback" Key input
STEP TEST
30000202 00000000
RF gain adjustment, Track on
"Playback" Key input
STEP TEST
30000203 00000000
Focus gain adjustment
"Playback" Key input
STEP TEST
30000204 00000000
Track gain adjustment
"Playback" Key input
STEP TEST
30000205 00000000
Focus balance adjustment
(DVD operation)
(CD operation)
STEP TEST
DD000210 00000000
In case of 2-layer DVD,
adjust the focus balance,
the RF gain and the focus
gain of the layer 0.
STEP TEST END
CD000210 ********
Following playback
state after reading TOC.
(******** is a SUB-Q)
STEP TEST
DD000211 00000000
Control data lead
"Playback" Key input
STEP TEST END
DD000212 ********
Following playback state
(******** is a sector ID)
To (2)


From (2)
Following playback, jump test mode
"3" Key input
PLAY TEST
30000001 00000000
Load a disc after the tray is opened.
"Open/Close" Key input
PLAY TEST
DD000303 ********
Following playback state (******** is a sector ID)
Pressing the keys on the remote control mentioned in the table below enables the test jump.
Spin offset adjustment mode
"MENU" Key input
SPIN OFFSET
Tray open.
ADJUST COMPLETE
00000000 0000****
(Offset adjustment of the spindle is executed automatically.)
The adjustment result is indicated in the **** section.

Key	Jump	Key	Jump
1	-1	3	1
4	-102	6	102
7	-510	9	510
C	-511	M	511
2	-765	Repeat	765
5	-766	A-B	766
8	-7000	Program	7000
Before skipping.	-15000	After skipping.	15000
Next replay	Layer Jump		

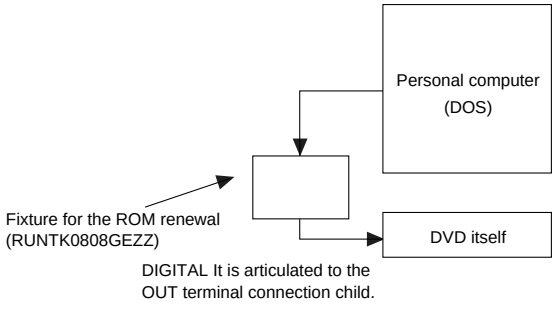
[ROM RENEWAL MODE]

1. A DVD itself and a personal computer are articulated as the right figure. Software for the renewal is started more.
2. A power source is put with pushing a DVD's own playback key and a halt key at the same time. (It keeps pushing it for about three seconds.)

   R : OK — It is displayed.
3. When "Y" is inputted in accordance with the personal computer display and data transfer indication is shown and renewal process is started normally when an ENTER key is pushed.

   W : STR — It is displayed.
4. When renewal is completed normally.

   W : END — It is displayed.
5. "STOP" key is surely pushed if renewal is completed and the display of above NO.4 is confirmed.It is made to turn off POWER after that.



PART CODE	Price Code
RUNTK0808GEZZ	CD

10. TROUBLESHOOTING

(DVD)

FLOW CHART NO.1

The fluorescent display tube does not light.

Is the supply voltage of 5V fed to pin(14) and pin (38) of IC5001? — No → Check the PC 5V line.

Yes

Is the supply voltage of -19V fed to pin(27) of IC5001? — No → Check the PC -19V line and Q8202.

Yes

Is there 500kHz oscillation at pin(44) of IC5001? — No → Check R5014-5, IC5001 and their periphery.

Yes

Check the signal lines of FIP DA, FIP CK, FIP CS of IC5001 and IC504. — No → Check or replace IC5001 and IC504.

Yes

Are the filament voltage applied between (1), (2) and (31), (32) of the fluorescent display tube? Also negative voltage applied between these pins and GND. — No → Check the power circuit, D5004 and Q8203.

Yes

Check the fluorescent display tube and its periphery? — No → Check that the fluorescent display tube is free from damages such as crack.

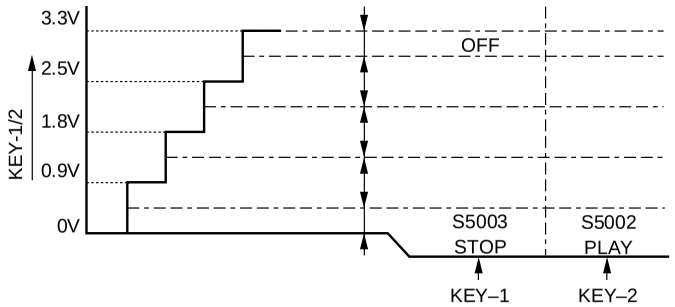
FLOW CHART NO.2

The key operation is disabled.

Is key switch contact and installation state normal? — No → Replace key switch.

Yes

Is the control voltage normally into the pins(95) and (96) of IC504?



FLOW CHART NO.3

No operation is possible from the infrared remote control.

Operation is possible from the DVD, but no operation is possible from the infrared remote control. — No → Replace the remote control receiver or replace the remote control transmitter is necessary.

Yes

Is 5V voltage supplied to the pin(3) terminal of remote control receiver? — No → Check AT 5V line.

Yes

Is the "L" pulse sent out pin(1) terminal of receiver when the infrared remote control is activated? — No → Replace the remote control receiver.

Yes

Is pulse signal supplied to the pin(10) of IC8201? — No → Check the line between the remote control receiver and the pin(10) of IC8201.

Yes → Replace IC8201.

Is pulse signal supplied to the pin(32) of IC504? — No → Check the line between the remote control receiver and the pin(32) of IC504.

Yes → Replace IC504.

FLOW CHART NO.4

The disc tray cannot be opened and closed.

Is the signal from the pins(70) and (69) of IC504 input into the pins(1) and (28) of IC7701? — No → Check the LD-RVS/FWD signal line between IC7701 and the IC504.

Yes

Is loading motor drive voltage output from the pins(9) and (10) of IC7701? — No → Is 8V voltage applied to the pin(8) of IC7701? — No → Check AT 8V line.

Is 8V voltage applied to the pin(8) of IC7701? — Yes → Replace IC702.

Yes

Is the loading motor drive voltage applied to the terminal of loading motor? — No → Check the line between the IC702 and the loading motor.

Yes

Check for mechanism and gear engagement and breakage.

FLOW CHART NO.5

The [No Disc] indication. (In case of focus error)

Does the optical pickup move up and down after the disc is removed?(Checking of symptom.) — No → See FLOW CHART NO.6<The [No Disc] indication. (In case focus servo does not function.)>

Yes

Is FE signal output to the pin(21) of IC301 when the disc is set? — No → Is there input signal on the pins(52), (53), (54) and (55) of IC301? — No → Check the connection of optical pickup cable. If it is normal, replace the optical pickup.

Is there input signal on the pins(52), (53), (54) and (55) of IC301? — Yes → Replace IC301.

Yes

Is FE signal inputted into the pin(150) of IC701? — No → Check the line between the IC301 and IC701.

Yes

Check or replace IC701.

FLOW CHART NO.6

The [No Disc] indication. (In case focus servo does not function.)

- Is the focus control signal output to the pin(158) of IC701?
  - No → Check the pin(11) of IC701 DAC power source periphery circuit. If it is normal, replace IC701.
  - Yes ↓
- Is the focus control signal from the pin(158) of IC701 input into the pin(23) of IC7701?
  - No → Check the focus control signal line between the IC7701 and IC701.
  - Yes ↓
- Is the focus control drive voltage output from the pins(17) and (18) of IC7701?
  - No → Is 8V voltage applied to the pin(8) of IC7701?
    - No → Check AT 8V line.
    - Yes → Check the pin(21) of IC7701 and replace IC7701.
  - Yes ↓
- Is the focus control drive voltage applied to the terminal of focus actuator?
  - No → Check the line between the IC7701 and the focus actuator.
  - Yes ↓

Check the connection of optical pickup cable.
If it is normal, replace the traverse chassis unit.

FLOW CHART NO.7

The [No Disc] indication. (When the laser beam does not light.)

- Is the Q303(LD POWER CTL) drive output to the pin(46) of IC301? (Checking of symptom.)
  - No → Check the line between the pin(46) of IC301 and the base of Q303.
  - Yes ↓
- Is 5V voltage applied to the emitter of Q303?
  - No → Check the A_5V line.
  - Yes ↓
- Is approx. 2V applied to the pin(3) of the pickup terminal? (See note.)
  - No → Check the line between the Q301, Q307 and pickup terminal.
  - Yes ↓

Check the connection of optical pickup cable.
If it is normal, replace the traverse chassis unit.

Note: Since the laser diode is very susceptible to static electricity, be careful of static electricity or electricity leak from the measuring equipment when confirming the voltage.

FLOW CHART NO.8

Both picture and sound do not operate normally.(1)

- Set the disc on the disc tray.
- Yes ↓
- Do you have loading done the disk by normality?
  - No → Check the loading switch.
  - Yes ↓
- Is the level of RF signal which is output from pins(29), (30) of IC301, normal?
  - No → Check for contamination of objective lens of optical pickup.
  - Yes ↓
- Replace the main PWB unit.
  - No → Replace traverse chassis unit.
  - Yes ↓

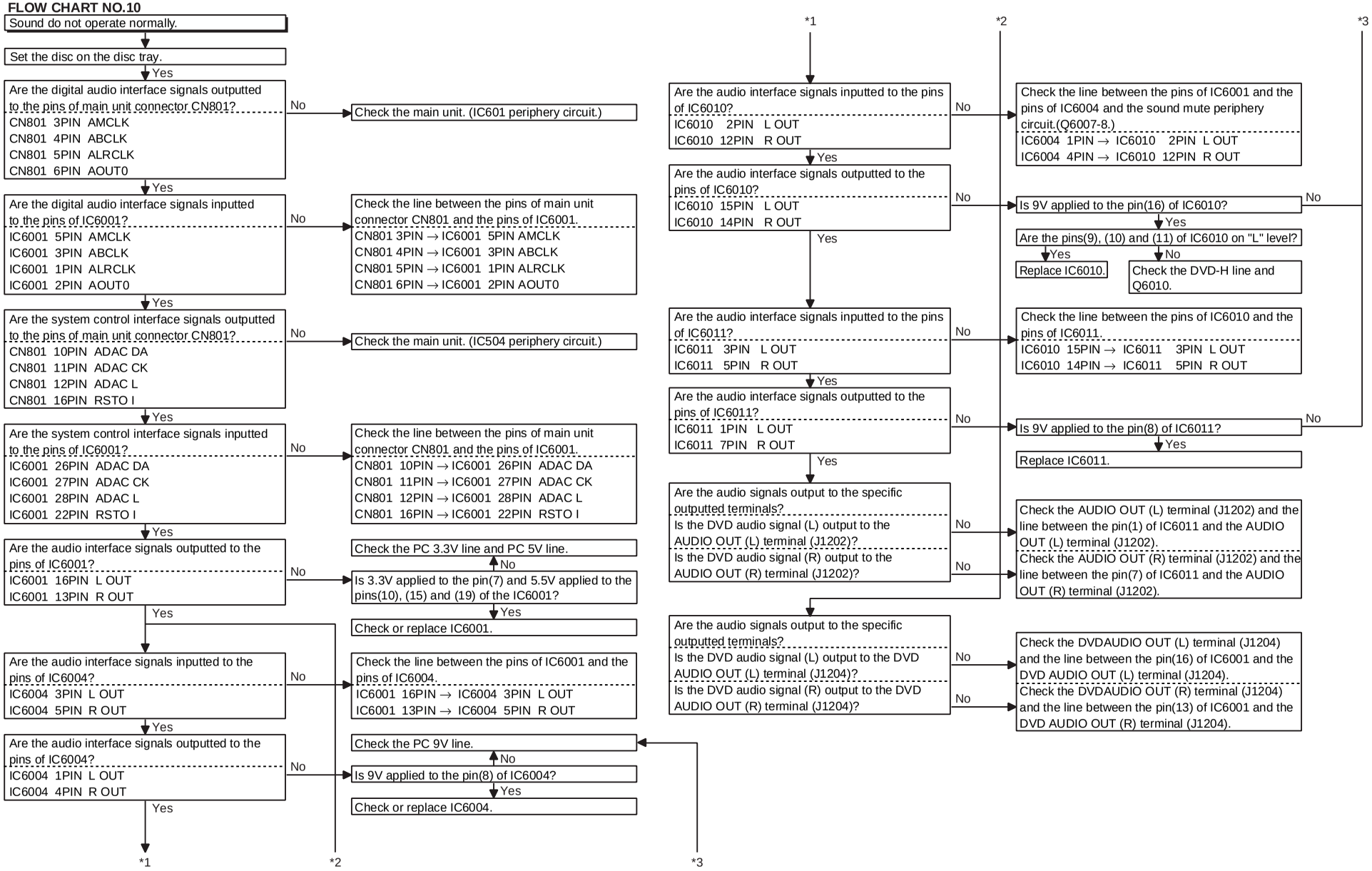
See FLOW CHART NO.9 and NO.10.

FLOW CHART NO.9

Picture do not operate normally.

- Set the disc on the disc tray.
- Yes ↓
- Are the video signals outputted to the pins of main unit connector CN802?
  CN802 1PIN CVBS/Y
  CN802 3PIN Y/CR
  CN802 5PIN C/CB
  - No → Check the main unit. (IC601, Q205, Q203, Q202 periphery circuit.)
  - Yes ↓
- Are the video signals shown above input into the pins of IC2002?
  IC2002 5PIN CVBS
  IC2002 2PIN S-Y
  IC2002 12PIN S-C
  - No → Check the parts around Q2002 ~ Q2005 and Q2008 ~ Q2011, Q2001 ~ Q2004, Q2007, Q2010, Q2003~Q2006, Q2009, Q2012, and the lines between them.
  - Yes ↓
- Are the video signal outputted to each pins of IC2002?
  IC2002 4PIN CVBS
  IC2002 15PIN S-Y
  IC2002 14PIN S-C
  - No → Is 5V applied to the pin(16) of IC2002?
    - No → Check the PC 5V line.
    - Yes → Are the V-MUTE lines at the pins(9), (10) and (11) of IC2002 on "L" level?
      - No → Check the V-MUTE line.
      - Yes → Replace IC2002.
  - Yes ↓
- Are the video signal outputted to each pins of IC2003, 2004?
  IC2004 4PIN Y
  IC2004 5PIN C
  IC2003 2PIN COMP
  - No → Is 5V applied to the pin(7) of IC2004?
    - No → Check the PC 5V line.
    - Yes → Is 5V applied to the pin(3) of IC2003?
      - No → Check the PC 5V line.
      - Yes → Are the DVD-H at the pin(1) of IC2003 on "H" level?
        - Yes → Replace IC2003.
        - No → Check the DVD-H line.
  - Yes ↓
- Are the video signals shown above output into the pins of output terminal?
  - Are the composite video signals outputted to the VIDEO OUT terminal (J1202)?
    - No → Check the VIDEO OUT terminal (J1202) and the line between the pin(2) of IC2003 and the VIDEO OUT terminal (J1202).
  - Are the luminance signals outputted to the S-OUT terminal (J1205)?
    - No → Check the S-OUT terminal (J1205) and the line between the pin(4) of IC2004 and the S-OUT terminal (J1205).
  - Are the chroma signals outputted to the S-OUT terminal (J1205)?
    - No → Check the S-OUT terminal (J1205) and the line between the pin(5) of IC2004 and the S-OUT terminal (J1205).

FLOW CHART NO.10


Sound do not operate normally.
Set the disc on the disc tray.
Yes
Are the digital audio interface signals outputted to the pins of main unit connector CN801?
CN801 3PIN AMCLK
CN801 4PIN ABCLK
CN801 5PIN ALRCLK
CN801 6PIN AOUT0
No
Check the main unit. (IC601 periphery circuit.)
Yes
Are the digital audio interface signals inputted to the pins of IC6001?
IC6001 5PIN AMCLK
IC6001 3PIN ABCLK
IC6001 1PIN ALRCLK
IC6001 2PIN AOUT0
No
Check the line between the pins of main unit connector CN801 and the pins of IC6001.
CN801 3PIN → IC6001 5PIN AMCLK
CN801 4PIN → IC6001 3PIN ABCLK
CN801 5PIN → IC6001 1PIN ALRCLK
CN801 6PIN → IC6001 2PIN AOUT0
Yes
Are the system control interface signals outputted to the pins of main unit connector CN801?
CN801 10PIN ADAC DA
CN801 11PIN ADAC CK
CN801 12PIN ADAC L
CN801 16PIN RSTO I
No
Check the main unit. (IC504 periphery circuit.)
Yes
Are the system control interface signals inputted to the pins of IC6001?
IC6001 26PIN ADAC DA
IC6001 27PIN ADAC CK
IC6001 28PIN ADAC L
IC6001 22PIN RSTO I
No
Check the line between the pins of main unit connector CN801 and the pins of IC6001.
CN801 10PIN → IC6001 26PIN ADAC DA
CN801 11PIN → IC6001 27PIN ADAC CK
CN801 12PIN → IC6001 28PIN ADAC L
CN801 16PIN → IC6001 22PIN RSTO I
Yes
Are the audio interface signals outputted to the pins of IC6001?
IC6001 16PIN L OUT
IC6001 13PIN R OUT
No
Check the PC 3.3V line and PC 5V line.
No
Is 3.3V applied to the pin(7) and 5.5V applied to the pins(10), (15) and (19) of the IC6001?
Yes
Check or replace IC6001.
Yes
Are the audio interface signals inputted to the pins of IC6004?
IC6004 3PIN L OUT
IC6004 5PIN R OUT
No
Check the line between the pins of IC6001 and the pins of IC6004.
IC6001 16PIN → IC6004 3PIN L OUT
IC6001 13PIN → IC6004 5PIN R OUT
Yes
Are the audio interface signals outputted to the pins of IC6004?
IC6004 1PIN L OUT
IC6004 4PIN R OUT
No
Check the PC 9V line.
No
Is 9V applied to the pin(8) of IC6004?
Yes
Check or replace IC6004.
Yes
*1
*2
*3
*1
Are the audio interface signals inputted to the pins of IC6010?
IC6010 2PIN L OUT
IC6010 12PIN R OUT
No
Check the line between the pins of IC6001 and the pins of IC6004 and the sound mute periphery circuit.(Q6007-8.)
IC6004 1PIN → IC6010 2PIN L OUT
IC6004 4PIN → IC6010 12PIN R OUT
Yes
Are the audio interface signals outputted to the pins of IC6010?
IC6010 15PIN L OUT
IC6010 14PIN R OUT
No
Is 9V applied to the pin(16) of IC6010?
No
Yes
Are the pins(9), (10) and (11) of IC6010 on "L" level?
Yes
Replace IC6010.
No
Check the DVD-H line and Q6010.
Yes
Are the audio interface signals inputted to the pins of IC6011?
IC6011 3PIN L OUT
IC6011 5PIN R OUT
No
Check the line between the pins of IC6010 and the pins of IC6011.
IC6010 15PIN → IC6011 3PIN L OUT
IC6010 14PIN → IC6011 5PIN R OUT
Yes
Are the audio interface signals outputted to the pins of IC6011?
IC6011 1PIN L OUT
IC6011 7PIN R OUT
No
Is 9V applied to the pin(8) of IC6011?
No
Yes
Replace IC6011.
Yes
Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the AUDIO OUT (L) terminal (J1202)?
No
Check the AUDIO OUT (L) terminal (J1202) and the line between the pin(1) of IC6011 and the AUDIO OUT (L) terminal (J1202).
Is the DVD audio signal (R) output to the AUDIO OUT (R) terminal (J1202)?
No
Check the AUDIO OUT (R) terminal (J1202) and the line between the pin(7) of IC6011 and the AUDIO OUT (R) terminal (J1202).
Are the audio signals output to the specific outputted terminals?
Is the DVD audio signal (L) output to the DVD AUDIO OUT (L) terminal (J1204)?
No
Check the DVDAUDIO OUT (L) terminal (J1204) and the line between the pin(16) of IC6001 and the DVD AUDIO OUT (L) terminal (J1204).
Is the DVD audio signal (R) output to the DVD AUDIO OUT (R) terminal (J1204)?
No
Check the DVDAUDIO OUT (R) terminal (J1204) and the line between the pin(13) of IC6001 and the DVD AUDIO OUT (R) terminal (J1204).

(VTR)

FLOW CHART NO.1

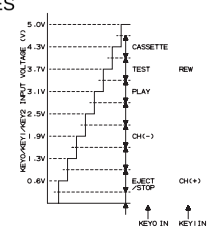
The VTR flourescent display tube fails light up.

- Is the supply voltage of 5V feed to pin(8) of IC5101? NO → Check STBY 5V line.
- YES → Is the supply voltage of –20V feed to pin(1) of IC5101? NO → Check STBY –20V line.
- YES → Is it possible to confirm signals FIP CS, FIP OE, FIP DATA, and FIP CLK on the pins(2), (3), (5) and (6) of IC5101? NO → Check signal line between IC1701 and IC5101.
- YES → Are grid and segment signals supplied to the indication tube (DG5101) from the indication tube driver IC (IC5101)? NO → Replace IC5101.
- YES → Is supply filament voltage feed between pin(1)/(2) and (31)/(32) of the flourescent display tube? NO → Check power circuit and D1952.
- YES → Check the periphery of fluorescent indication tube and main block. NO → Check that the fluorescent indication tube is free from damages such as crack.

FLOW CHART NO.2

Key-in input is not received.

- Does the key switch make good contact, when the cassette tape is inserted? NO → Check switch contact.
- YES → Is there the function control voltage inputted at the pins(87) and (88) of IC1701?
- YES



- Check or place the peripheral circuit of IC1701.

FLOW CHART NO.3

No operation is possible from the infrared remote control.

- Operation is possible from the VCR, but no operation is possible from the infrared remote control.
- YES → Is the supply voltage of 5V feed to pin(3) terminal of remote control receiver? NO → Check AT 5V lines.
- YES → Is "L" pulse sent out pin(1) terminal of receiver when the infrared remote control is activated? NO → Replace the remote control receiver or replace the remote control transmitter if necessary.
- YES → Is inputted "L" pulse to pin(5) of IC1701? NO → Check line between at remote control receiver thru to pin(5) of IC1701.
- YES → Replace IC1701.

FLOW CHART NO.4

A cassette tape is not take in.

- Is "L" level applied at pin(93) of IC1701. NO → Check R1847.
- YES → Are start sensor shutter go to openwhen the cassette tape is inserted? NO → Check start sensor shutter.
- YES → Does pin(79) of IC1701 change from "H" to "L" level when the cassette tape is inserted? NO → Check line start sensor and all the way up thru to pin(79) of IC1701.
- YES → Does pin(11) of IC1706 go to a "H"(about 4.7V) level when the cassette tape is inserted? NO → Check line pin(91) of IC1701 and all the way up thru to pin(11) of IC1706.
- YES → Does pin(13) of IC1706 change to about 10V when the cassette tape is inserted? NO → Check IC1706.
- YES → Is the specified voltage (about 10V) applied at the loading motor terminal when the cassette tape is inserted? NO → Check between IC1706 and loading motor.
- YES → Replace loading motor.

FLOW CHART NO.5

A cassette tape is taken in, but ejected at once.

- Does the start sensor pulse at pin(79) of IC1701 change from "L" to "H" level when the cassette tape is loaded? NO → Check line start sensor and all the way up thru to pin(79) of IC1701.
- YES → Does the end sensor pulse at pin(85) of IC1701 change from "L" to "H" level when the cassette tape is loaded? NO → Check line end sensor and all the way up thru to pin(85) of IC1701.
- YES → Does the master cam mode shifteroperate normally when the cassette tape is loaded? NO → Check cam switch (A), (B) and all the way up thru to pins(7), (6) of IC1701.
- YES → Replace IC1701.

FLOW CHART NO.6

The cassette tape fails to eject.

- Does the capstan motor start when the EJECT button is pressed?
  - NO → See FLOW CHART NO.8. <The capstan motor fails to run.>
  - YES ↓
- Does the take-up reel disk turn when the capstan motor is running?
  - NO → Check reel disk and reel drive unit.
  - YES ↓
- Are pulses applied at pin(2) of IC1701 when the take-up reel disk is turning?
  - NO → Check take-up reel sensor and all the way up thru to pin(2) of IC1701.
  - YES ↓
- Is a "H"(about 4.7V) level applied at pin(12) of IC1706 when a reel pules has been inputted?
  - NO → Check pin(90) of IC1701.
  - YES ↓
- Is the voltage about 10V sent out of pin(15) of IC1706?
  - NO → Check IC1706.
  - YES ↓
- Is the specified voltage applied at the loading motor terminal?
  - NO → Check between IC1706 and all the way up thru to the loading motor.
  - YES ↓
- Dose the loading motor run?
  - NO → Replace loading motor.
  - YES ↓

Replace cassette cam, gear, etc.

FLOW CHART NO.7

No power is turned on.

- Does power control(H) signal at pin(4) of IC1701 change from "L" to "H" level?
  - NO → Check IC1701.
  - YES ↓
- Does the base of Q1951 change from about 5.0V to 4.5V?
  - NO → Check the pin(4) of IC1701 and all the way up thru to Q1952.
  - YES ↓
- Is 5V sent out of the collector of Q1951?
  - NO → Check Q1951 and the STBY 5V line.

FLOW CHART NO.8

The capstan motor fails to run.

- Is the voltage more than about 2.6V DC given out of pin(29) of IC1701.
  - NO → Check IC1701.
  - YES ↓
- Is the supply voltage of 5V feed to pin(8) of AC connector?
  - NO → Check PC 5V line.
  - YES ↓
- Is the voltage more than 2.6V DC sent in pin(4) of AC connector?
  - NO → Check between the pin(4) of AC connector and all the way up thru to pin(29) of IC1701.
  - YES ↓
- Is approx. 3.5V applied to the pin(3) of the AC connector?
  - NO → Check the pin(92) of IC1701.
  - YES ↓
- Is 23V applied to the pin(5) of the AC connector normally?
  - NO → Check AT 23V line.
  - YES ↓

Replace capstan motor.

FLOW CHART NO.9

The drum motor fails to run.

- Is the voltage more than about 2.6V DC given out of pin(46) of IC1701.
  - NO → Check IC1701.
  - YES ↓
- Is the supply voltage of 5V feed to pin(3) of IC1706?
  - NO → Check PC 5V line.
  - YES ↓
- Is the voltage more than about 2.6V applied at pin(2) of IC1706?
  - NO → Check between pin(46) of IC1701 and all the way up to pin(2) of IC1706.
  - YES ↓
- Is the supply voltage of 12V feed to pin(21) of IC1706?
  - NO → Check PC 12V line.
  - YES ↓

Check or replace drum motor.

FLOW CHART NO.10

The drum motor runs only for a few seconds.

- Is drum PG signal given out of pin(7) of IC1706?
  - NO → Check pins(4), (5), (6) of IC1706 and periperal circuits.
    - NO ↑ Replace IC1706.
    - YES ↓ Check or replace drum motor.
  - YES ↓
- Is drum PG signal given out of pin(66) of IC1701?
  - NO → Check line between pin(7) of IC1706 and all the way up thru to pin(66) of IC1701.
  - YES ↓
- Is V-H.SW.P pulse given out of pin(23) of IC1701?
  - NO → Check IC1701.
  - YES ↓

Replace IC1701.

FLOW CHART NO.11

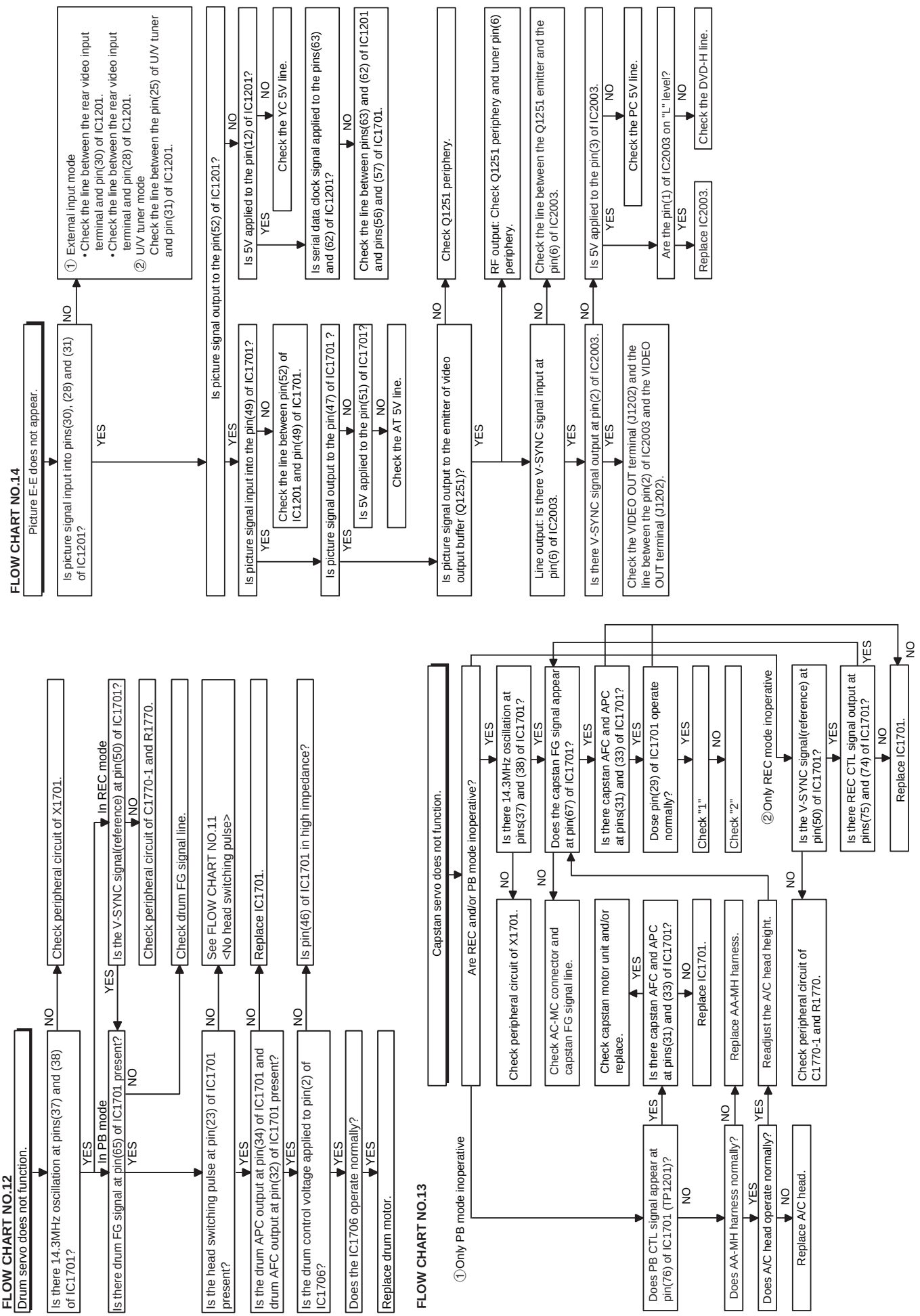
No head switching pulse.

- Is the drum motor rotating?
  - NO → See FLOW CHART NO.9, 10 <The drum motor fails to run> <The drum motor runs only for a few seconds>
  - YES ↓
- Is the drum PG signal and drum FG signal present on pins(66) and (65) of IC1701, respectively?
  - NO → Replace IC1701.
  - YES ↓

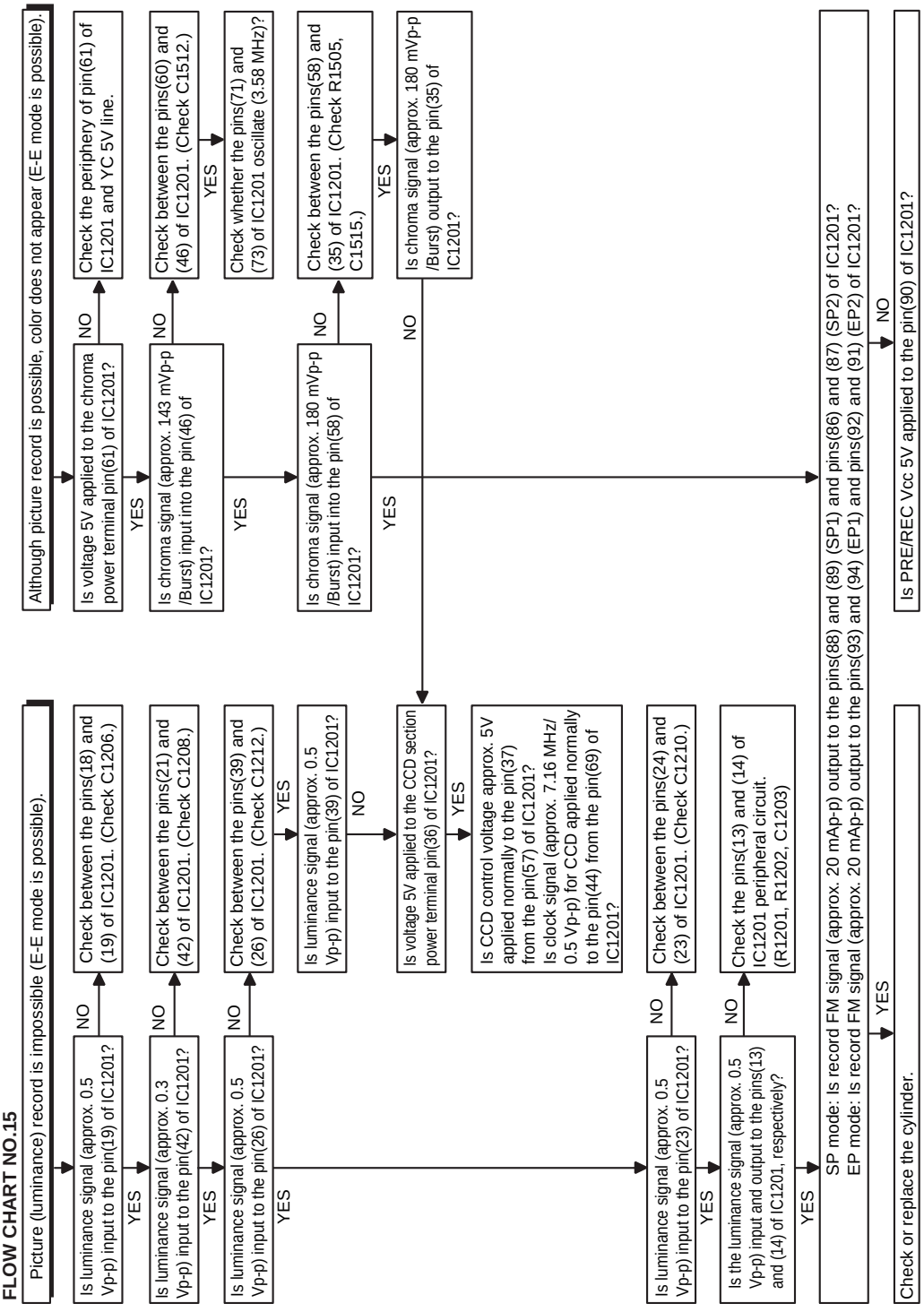
D-FG: About 5Vp-p D-PG: About 5Vp-p

- Are the drum PG and drum FG signals present on pins(7) and (8) of IC1706?
  - NO → Check line between pins(7), (8) of IC1706 and all the way up thru to pins(65), (66) of IC1701.
  - YES ↓

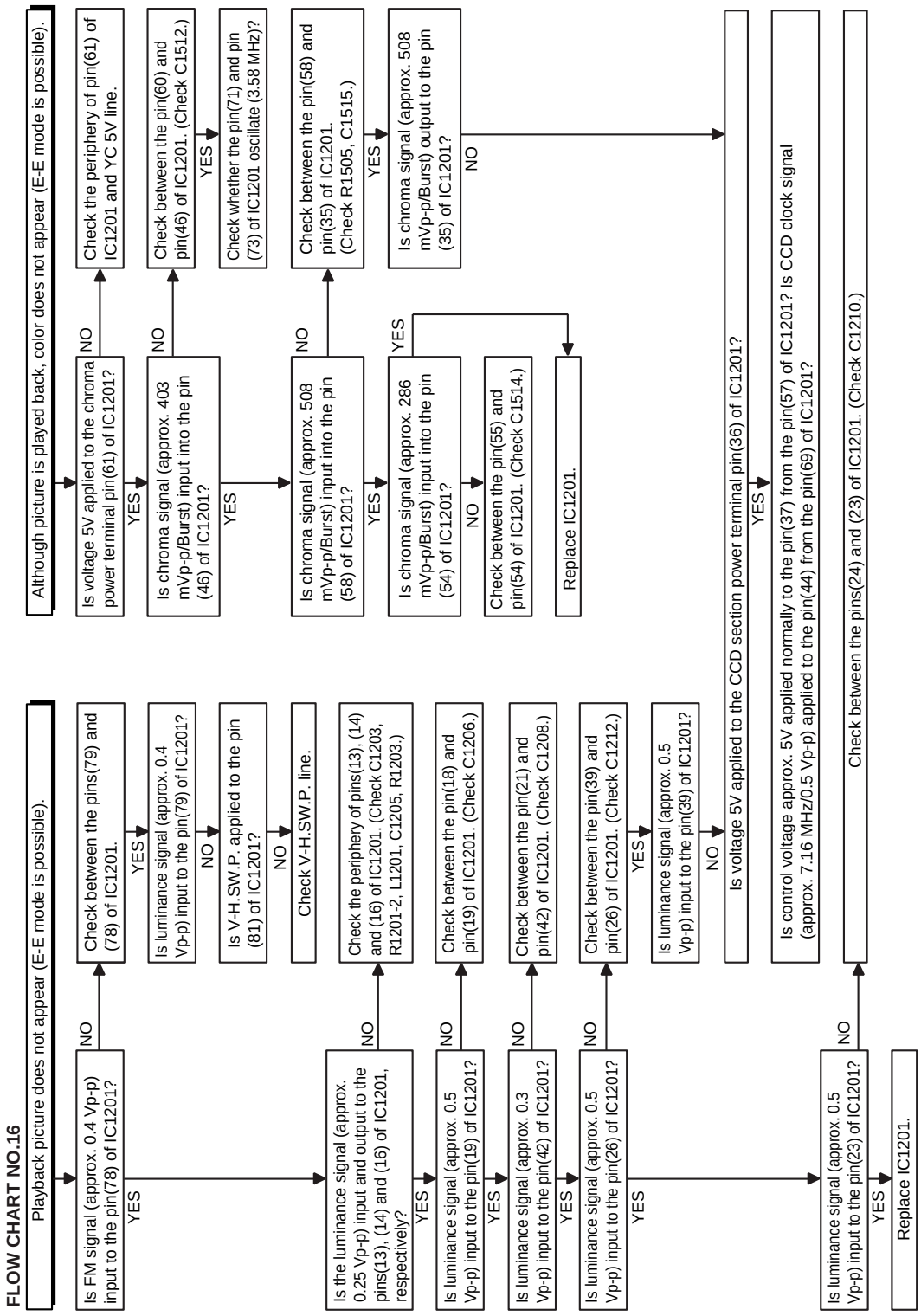
Check periperal circuit of IC1706.

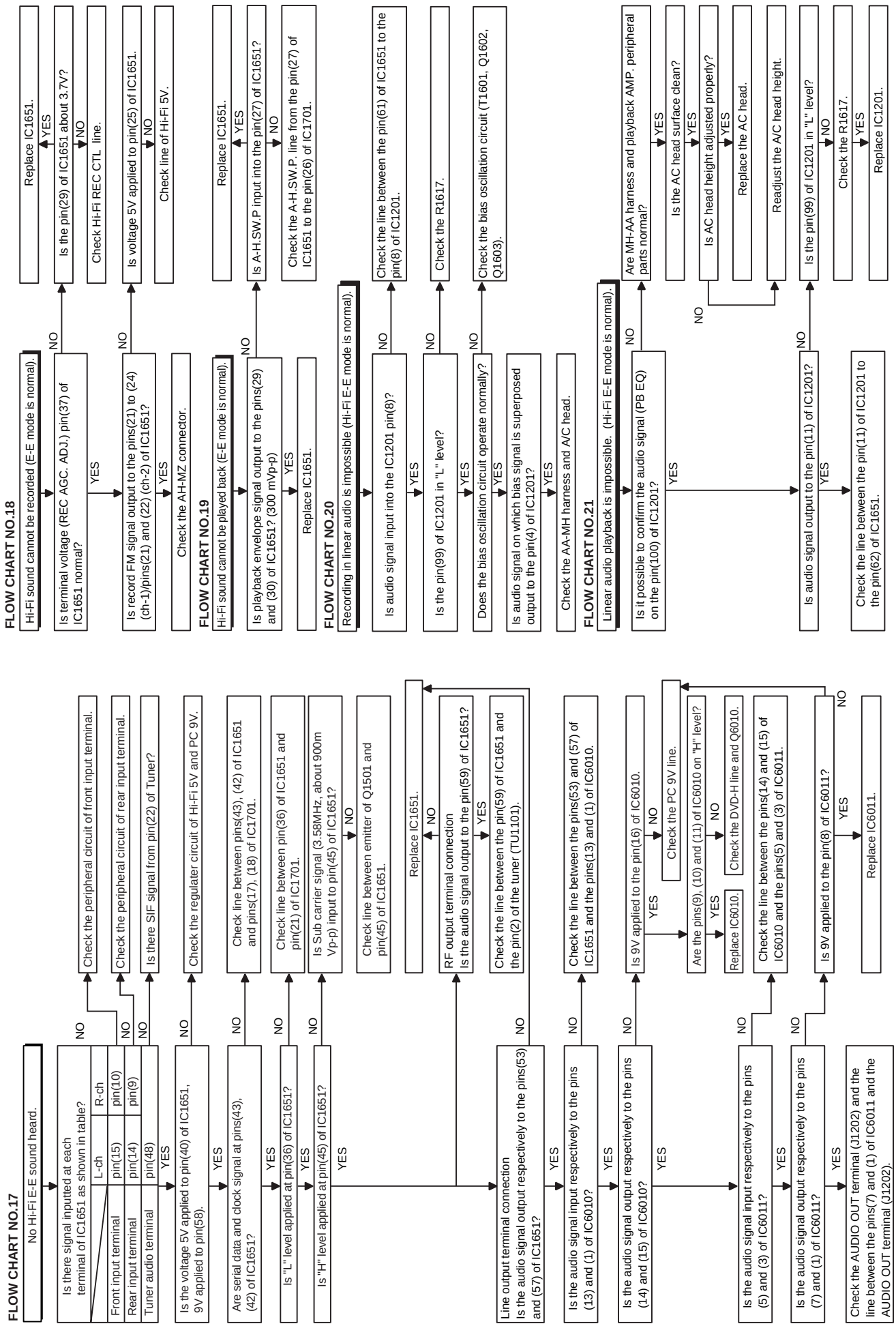

FLOW CHART NO.12
Drum servo does not function.
Is there 14.3MHz oscillation at pins(37) and (38) of IC1701?
NO
Check peripheral circuit of X1701.
YES
In PB mode
Is there drum FG signal at pin(65) of IC1701 present?
YES
NO
In REC mode
Is the V-SYNC signal(reference) at pin(50) of IC1701?
NO
Check peripheral circuit of C1770-1 and R1770.
YES
Check drum FG signal line.
Is the head switching pulse at pin(23) of IC1701 present?
NO
See FLOW CHART NO.11 <No head switching pulse>
YES
Is the drum APC output at pin(34) of IC1701 and drum AFC output at pin(32) of IC1701 present?
NO
Replace IC1701.
YES
Is the drum control voltage applied to pin(2) of IC1706?
NO
Is pin(46) of IC1701 in high impedance?
YES
Does the IC1706 operate normally?
YES
Replace drum motor.
FLOW CHART NO.13
Capstan servo does not function.
①Only PB mode inoperative
Are REC and/or PB mode inoperative?
YES
Is there 14.3MHz oscillation at pins(37) and (38) of IC1701?
NO
Check peripheral circuit of X1701.
YES
Does the capstan FG signal appear at pin(67) of IC1701?
NO
Check AC-MC connector and capstan FG signal line.
YES
Is there capstan AFC and APC at pins(31) and (33) of IC1701?
NO
Check capstan motor unit and/or replace.
YES
Dose pin(29) of IC1701 operate normally?
NO
Replace IC1701.
YES
Check "1"
NO
Replace AA-MH harness.
Check "2"
②Only REC mode inoperative
Is the V-SYNC signal(reference) at pin(50) of IC1701?
NO
Readjust the A/C head height.
YES
Is there REC CTL signal output at pins(75) and (74) of IC1701?
NO
Check peripheral circuit of C1770-1 and R1770.
YES
Replace IC1701.
Does PB CTL signal appear at pin(76) of IC1701 (TP1201)?
YES
NO
Does AA-MH harness normally?
YES
NO
Does A/C head operate normally?
YES
NO
Replace A/C head.
FLOW CHART NO.14
Picture E-E does not appear.
Is picture signal input into pins(30), (28) and (31) of IC1201?
NO
① External input mode
• Check the line between the rear video input terminal and pin(30) of IC1201.
• Check the line between the rear video input terminal and pin(28) of IC1201.
② U/V tuner mode
Check the line between the pin(25) of U/V tuner and pin(31) of IC1201.
YES
Is picture signal output to the pin(52) of IC1201?
NO
Is 5V applied to the pin(12) of IC1201?
NO
Check the YC 5V line.
YES
Is picture signal input into the pin(49) of IC1701?
NO
Check the line between pin(52) of IC1201 and pin(49) of IC1701.
YES
Is serial data clock signal applied to the pins(63) and (62) of IC1201?
NO
Check the line between pins(63) and (62) of IC1201 and pins(56) and (57) of IC1701.
YES
Is picture signal output to the pin(47) of IC1701 ?
NO
Is 5V applied to the pin(51) of IC1701?
NO
Check the AT 5V line.
YES
Is picture signal output to the emitter of video output buffer (Q1251)?
NO
Check Q1251 periphery.
YES
RF output: Check Q1251 periphery and tuner pin(6) periphery.
Line output: Is there V-SYNC signal input at pin(6) of IC2003.
NO
Check the line between the Q1251 emitter and the pin(6) of IC2003.
YES
Is there V-SYNC signal output at pin(2) of IC2003.
NO
Check the VIDEO OUT terminal (J1202) and the line between the pin(2) of IC2003 and the VIDEO OUT terminal (J1202).
YES
Is 5V applied to the pin(3) of IC2003.
NO
Check the PC 5V line.
YES
Are the pin(1) of IC2003 on "L" level?
NO
Check the DVD-H line.
YES
Replace IC2003.

FLOW CHART NO.15


Picture (luminance) record is impossible (E-E mode is possible).
Is luminance signal (approx. 0.5 Vp-p) input to the pin(19) of IC1201?
NO
Check between the pins(18) and (19) of IC1201. (Check C1206.)
YES
Is luminance signal (approx. 0.3 Vp-p) input to the pin(42) of IC1201?
NO
Check between the pins(21) and (42) of IC1201. (Check C1208.)
YES
Is luminance signal (approx. 0.5 Vp-p) input to the pin(26) of IC1201?
NO
Check between the pins(39) and (26) of IC1201. (Check C1212.)
YES
Is luminance signal (approx. 0.5 Vp-p) input to the pin(39) of IC1201?
NO
Is voltage 5V applied to the CCD section power terminal pin(36) of IC1201?
YES
Is CCD control voltage approx. 5V applied normally to the pin(37) from the pin(57) of IC1201?
Is clock signal (approx. 7.16 MHz/ 0.5 Vp-p) for CCD applied normally to the pin(44) from the pin(69) of IC1201?
YES
Is luminance signal (approx. 0.5 Vp-p) input to the pin(23) of IC1201?
NO
Check between the pins(24) and (23) of IC1201. (Check C1210.)
YES
Is the luminance signal (approx. 0.5 Vp-p) input and output to the pins(13) and (14) of IC1201, respectively?
NO
Check the pins(13) and (14) of IC1201 peripheral circuit. (R1201, R1202, C1203)
YES
SP mode: Is record FM signal (approx. 20 mAp-p) output to the pins(88) and (89) (SP1) and pins(86) and (87) (SP2) of IC1201?
EP mode: Is record FM signal (approx. 20 mAp-p) output to the pins(93) and (94) (EP1) and pins(92) and (91) (EP2) of IC1201?
YES
Check or replace the cylinder.
NO
Is PRE/REC Vcc 5V applied to the pin(90) of IC1201?
Although picture record is possible, color does not appear (E-E mode is possible).
Is voltage 5V applied to the chroma power terminal pin(61) of IC1201?
NO
Check the periphery of pin(61) of IC1201 and YC 5V line.
YES
Is chroma signal (approx. 143 mVp-p /Burst) input into the pin(46) of IC1201?
NO
Check between the pins(60) and (46) of IC1201. (Check C1512.)
YES
Check whether the pins(71) and (73) of IC1201 oscillate (3.58 MHz)?
YES
Is chroma signal (approx. 180 mVp-p /Burst) input into the pin(58) of IC1201?
NO
Check between the pins(58) and (35) of IC1201. (Check R1505, C1515.)
YES
Is chroma signal (approx. 180 mVp-p /Burst) output to the pin(35) of IC1201?
NO

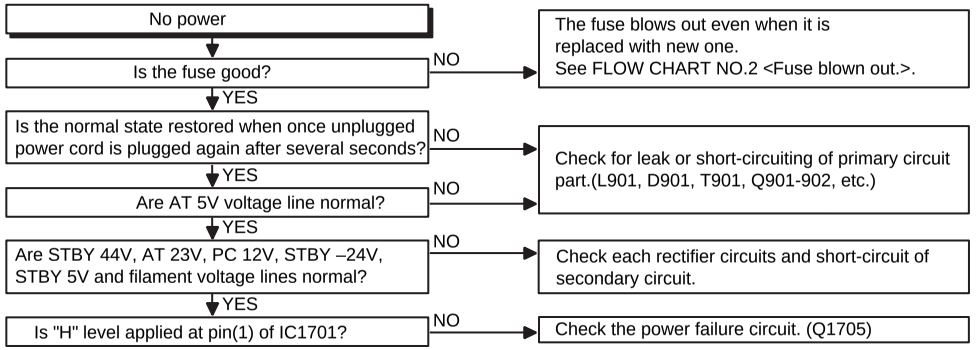
FLOW CHART NO.16


Playback picture does not appear (E-E mode is possible).
Is FM signal (approx. 0.4 Vp-p) input to the pin(78) of IC1201?
NO
Check between the pins(79) and (78) of IC1201.
YES
Is luminance signal (approx. 0.4 Vp-p) input to the pin(79) of IC1201?
NO
Is V-H.SW.P. applied to the pin (81) of IC1201?
NO
Check V-H.SW.P. line.
YES
Is the luminance signal (approx. 0.25 Vp-p) input and output to the pins(13), (14) and (16) of IC1201, respectively?
NO
Check the periphery of pins(13), (14) and (16) of IC1201. (Check C1203, R1201-2, L1201, C1205, R1203.)
YES
Is luminance signal (approx. 0.5 Vp-p) input to the pin(19) of IC1201?
NO
Check between the pin(18) and pin(19) of IC1201. (Check C1206.)
YES
Is luminance signal (approx. 0.3 Vp-p) input to the pin(42) of IC1201?
NO
Check between the pin(21) and pin(42) of IC1201. (Check C1208.)
YES
Is luminance signal (approx. 0.5 Vp-p) input to the pin(26) of IC1201?
NO
Check between the pin(39) and pin(26) of IC1201. (Check C1212.)
YES
Is luminance signal (approx. 0.5 Vp-p) input to the pin(39) of IC1201?
NO
Is voltage 5V applied to the CCD section power terminal pin(36) of IC1201?
YES
Is control voltage approx. 5V applied normally to the pin(37) from the pin(57) of IC1201? Is CCD clock signal (approx. 7.16 MHz/0.5 Vp-p) applied to the pin(44) from the pin(69) of IC1201?
Is luminance signal (approx. 0.5 Vp-p) input to the pin(23) of IC1201?
NO
Check between the pins(24) and (23) of IC1201. (Check C1210.)
YES
Replace IC1201.
Although picture is played back, color does not appear (E-E mode is possible).
Is voltage 5V applied to the chroma power terminal pin(61) of IC1201?
NO
Check the periphery of pin(61) of IC1201 and YC 5V line.
YES
Is chroma signal (approx. 403 mVp-p/Burst) input into the pin (46) of IC1201?
NO
Check between the pin(60) and pin(46) of IC1201. (Check C1512.)
YES
Is chroma signal (approx. 508 mVp-p/Burst) input into the pin (58) of IC1201?
NO
Check whether the pin(71) and pin (73) of IC1201 oscillate (3.58 MHz)?
YES
Is chroma signal (approx. 286 mVp-p/Burst) input into the pin (54) of IC1201?
NO
Check between the pin(58) and pin(35) of IC1201. (Check R1505, C1515.)
YES
Check between the pin(55) and pin(54) of IC1201. (Check C1514.)
Is chroma signal (approx. 508 mVp-p/Burst) output to the pin (35) of IC1201?
NO
YES
Replace IC1201.

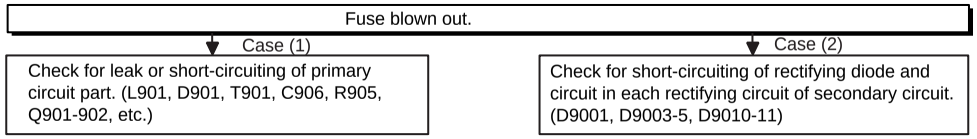

FLOW CHART NO.17
No Hi-Fi E-E sound heard.
Is there signal inputted at each terminal of IC1651 as shown in table?
L-ch
R-ch
Front input terminal
pin(15)
pin(10)
Rear input terminal
pin(14)
pin(9)
Tuner audio terminal
pin(48)
Check the peripheral circuit of front input terminal.
Check the peripheral circuit of rear input terminal.
Is there SIF signal from pin(22) of Tuner?
Check the regulater circuit of Hi-Fi 5V and PC 9V.
Is the voltage 5V applied to pin(40) of IC1651, 9V applied to pin(58).
Are serial data and clock signal at pins(43), (42) of IC1651?
Check line between pins(43), (42) of IC1651 and pins(17), (18) of IC1701.
Is "L" level applied at pin(36) of IC1651?
Check line between pin(36) of IC1651 and pin(21) of IC1701.
Is "H" level applied at pin(45) of IC1651?
Is Sub carrier signal (3.58MHz, about 900m Vp-p) input to pin(45) of IC1651?
Check line between emitter of Q1501 and pin(45) of IC1651.
Line output terminal connection
Is the audio signal output respectively to the pins(53) and (57) of IC1651?
Replace IC1651.
RF output terminal connection
Is the audio signal output to the pin(59) of IC1651?
Check the line between the pin(59) of IC1651 and the pin(2) of the tuner (TU1101).
Is the audio signal input respectively to the pins (13) and (1) of IC6010?
Check the line between the pins(53) and (57) of IC1651 and the pins(13) and (1) of IC6010.
Is the audio signal output respectively to the pins (14) and (15) of IC6010?
Is 9V applied to the pin(16) of IC6010.
Check the PC 9V line.
Is the audio signal input respectively to the pins (5) and (3) of IC6011?
Are the pins(9), (10) and (11) of IC6010 on "H" level?
Replace IC6010.
Check the DVD-H line and Q6010.
Check the line between the pins(14) and (15) of IC6010 and the pins(5) and (3) of IC6011.
Is the audio signal output respectively to the pins (7) and (1) of IC6011?
Is 9V applied to the pin(8) of IC6011?
Replace IC6011.
Check the AUDIO OUT terminal (J1202) and the line between the pins(7) and (1) of IC6011 and the AUDIO OUT terminal (J1202).
FLOW CHART NO.18
Hi-Fi sound cannot be recorded (E-E mode is normal).
Is terminal voltage (REC AGC. ADJ.) pin(37) of IC1651 normal?
Replace IC1651.
Is the pin(29) of IC1651 about 3.7V?
Check Hi-Fi REC CTL line.
Is record FM signal output to the pins(21) to (24) (ch-1)/pins(21) and (22) (ch-2) of IC1651?
Is voltage 5V applied to pin(25) of IC1651.
Check the AH-MZ connector.
Check line of Hi-Fi 5V.
FLOW CHART NO.19
Hi-Fi sound cannot be played back (E-E mode is normal).
Is playback envelope signal output to the pins(29) and (30) of IC1651? (300 mVp-p)
Replace IC1651.
Is A-H.SW.P input into the pin(27) of IC1651?
Replace IC1651.
Check the A-H.SW.P. line from the pin(27) of IC1651 to the pin(26) of IC1701.
FLOW CHART NO.20
Recording in linear audio is impossible (Hi-Fi E-E mode is normal).
Is audio signal input into the IC1201 pin(8)?
Check the line between the pin(61) of IC1651 to the pin(8) of IC1201.
Is the pin(99) of IC1201 in "L" level?
Check the R1617.
Does the bias oscillation circuit operate normally?
Check the bias oscillation circuit (T1601, Q1602, Q1603).
Is audio signal on which bias signal is superposed output to the pin(4) of IC1201?
Check the AA-MH harness and A/C head.
FLOW CHART NO.21
Linear audio playback is impossible. (Hi-Fi E-E mode is normal).
Is it possible to confirm the audio signal (PB EQ) on the pin(100) of IC1201?
Are MH-AA harness and playback AMP. peripheral parts normal?
Is the AC head surface clean?
Is AC head height adjusted properly?
Replace the AC head.
Readjust the A/C head height.
Is audio signal output to the pin(11) of IC1201?
Is the pin(99) of IC1201 in "L" level?
Check the R1617.
Replace IC1201.
Check the line between the pin(11) of IC1201 to the pin(62) of IC1651.
YES
NO

(POWER)

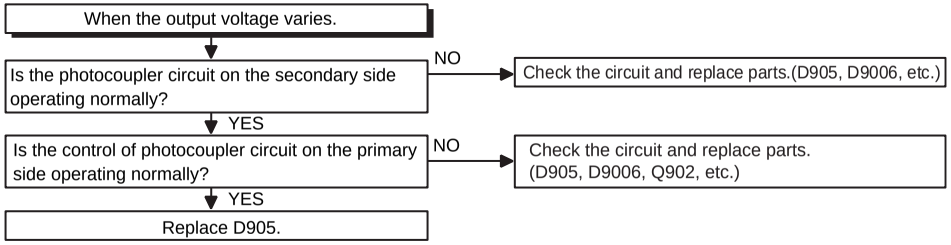
FLOW CHART NO.1


No power
Is the fuse good?
NO
The fuse blows out even when it is replaced with new one. See FLOW CHART NO.2 <Fuse blown out.>.
YES
Is the normal state restored when once unplugged power cord is plugged again after several seconds?
NO
Check for leak or short-circuiting of primary circuit part.(L901, D901, T901, Q901-902, etc.)
YES
Are AT 5V voltage line normal?
NO
YES
Are STBY 44V, AT 23V, PC 12V, STBY –24V, STBY 5V and filament voltage lines normal?
NO
Check each rectifier circuits and short-circuit of secondary circuit.
YES
Is "H" level applied at pin(1) of IC1701?
NO
Check the power failure circuit. (Q1705)

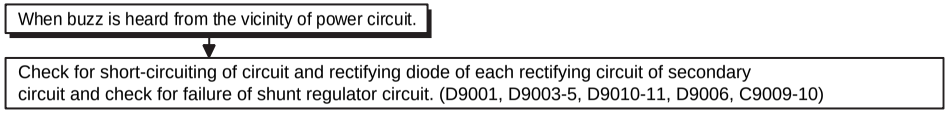
FLOW CHART NO.2


Fuse blown out.
Case (1)
Check for leak or short-circuiting of primary circuit part. (L901, D901, T901, C906, R905, Q901-902, etc.)
Case (2)
Check for short-circuiting of rectifying diode and circuit in each rectifying circuit of secondary circuit. (D9001, D9003-5, D9010-11)

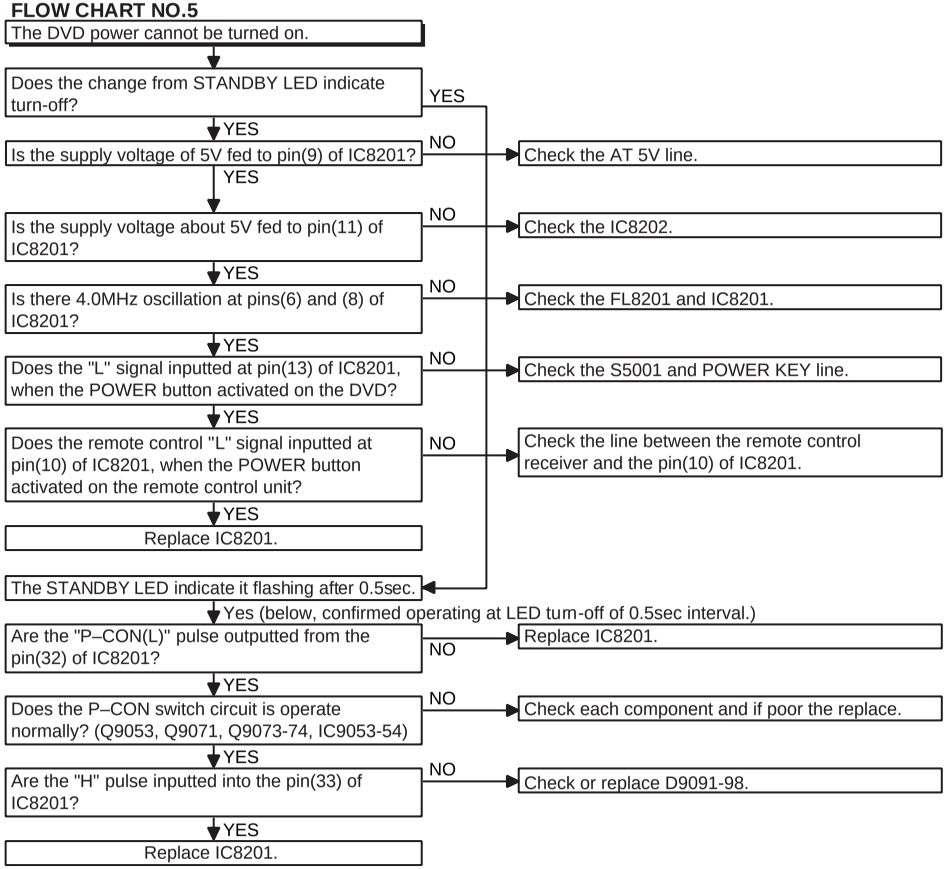
FLOW CHART NO.3


When the output voltage varies.
Is the photocoupler circuit on the secondary side operating normally?
NO
Check the circuit and replace parts.(D905, D9006, etc.)
YES
Is the control of photocoupler circuit on the primary side operating normally?
NO
Check the circuit and replace parts. (D905, D9006, Q902, etc.)
YES
Replace D905.

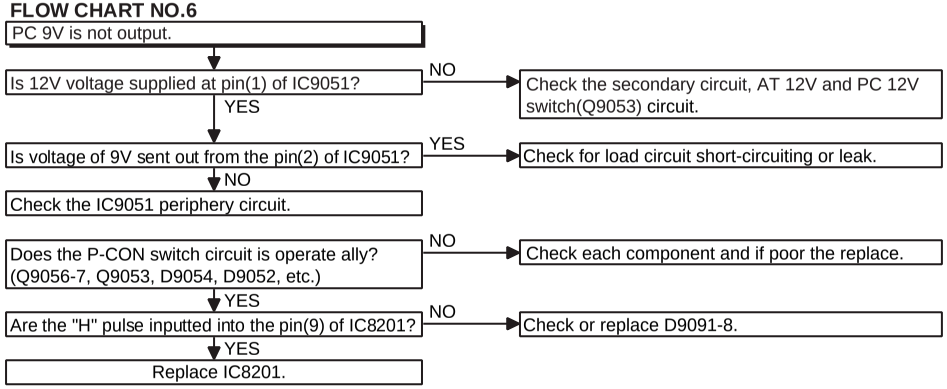
FLOW CHART NO.4


When buzz is heard from the vicinity of power circuit.
Check for short-circuiting of circuit and rectifying diode of each rectifying circuit of secondary circuit and check for failure of shunt regulator circuit. (D9001, D9003-5, D9010-11, D9006, C9009-10)

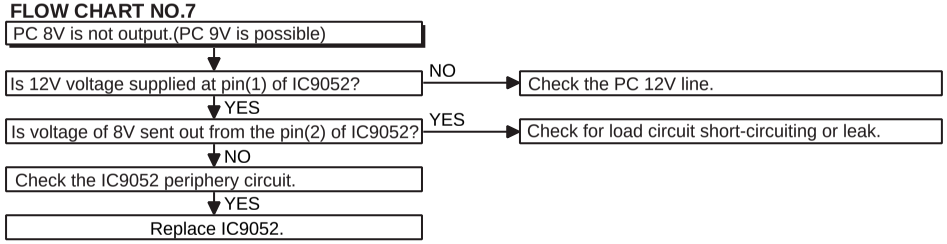
FLOW CHART NO.5


The DVD power cannot be turned on.
Does the change from STANDBY LED indicate turn-off?
YES
YES
Is the supply voltage of 5V fed to pin(9) of IC8201?
NO
Check the AT 5V line.
YES
Is the supply voltage about 5V fed to pin(11) of IC8201?
NO
Check the IC8202.
YES
Is there 4.0MHz oscillation at pins(6) and (8) of IC8201?
NO
Check the FL8201 and IC8201.
YES
Does the "L" signal inputted at pin(13) of IC8201, when the POWER button activated on the DVD?
NO
Check the S5001 and POWER KEY line.
YES
Does the remote control "L" signal inputted at pin(10) of IC8201, when the POWER button activated on the remote control unit?
NO
Check the line between the remote control receiver and the pin(10) of IC8201.
YES
Replace IC8201.
The STANDBY LED indicate it flashing after 0.5sec.
Yes (below, confirmed operating at LED turn-off of 0.5sec interval.)
Are the "P–CON(L)" pulse outputted from the pin(32) of IC8201?
NO
Replace IC8201.
YES
Does the P–CON switch circuit is operate normally? (Q9053, Q9071, Q9073-74, IC9053-54)
NO
Check each component and if poor the replace.
YES
Are the "H" pulse inputted into the pin(33) of IC8201?
NO
Check or replace D9091-98.
YES
Replace IC8201.

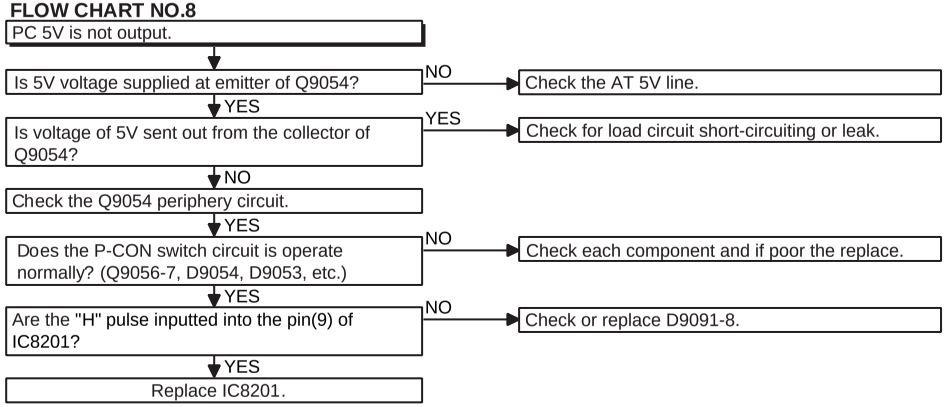
FLOW CHART NO.6


PC 9V is not output.
Is 12V voltage supplied at pin(1) of IC9051?
NO
Check the secondary circuit, AT 12V and PC 12V switch(Q9053) circuit.
YES
Is voltage of 9V sent out from the pin(2) of IC9051?
YES
Check for load circuit short-circuiting or leak.
NO
Check the IC9051 periphery circuit.
Does the P-CON switch circuit is operate ally? (Q9056-7, Q9053, D9054, D9052, etc.)
NO
Check each component and if poor the replace.
YES
Are the "H" pulse inputted into the pin(9) of IC8201?
NO
Check or replace D9091-8.
YES
Replace IC8201.

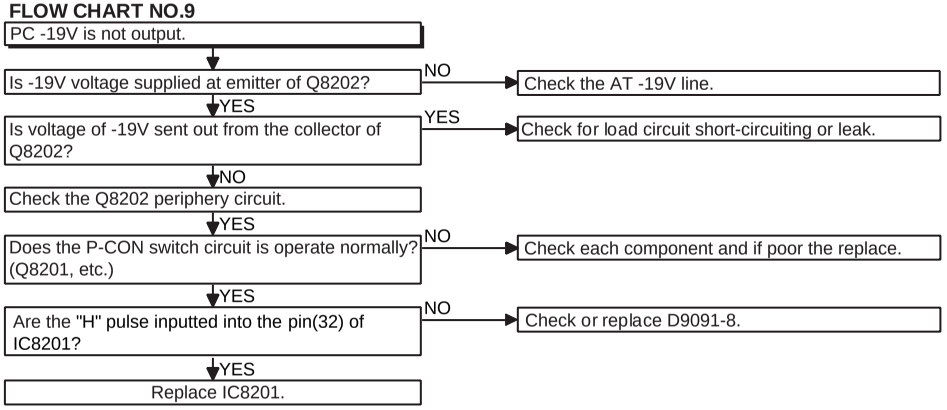
FLOW CHART NO.7


PC 8V is not output.(PC 9V is possible)
Is 12V voltage supplied at pin(1) of IC9052?
NO
Check the PC 12V line.
YES
Is voltage of 8V sent out from the pin(2) of IC9052?
YES
Check for load circuit short-circuiting or leak.
NO
Check the IC9052 periphery circuit.
YES
Replace IC9052.

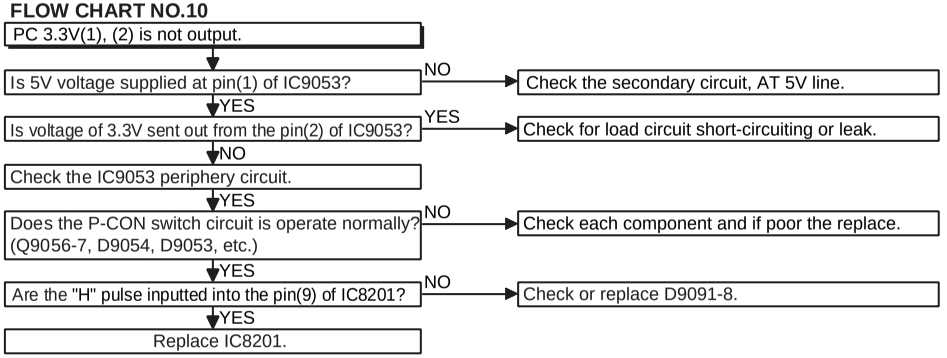
FLOW CHART NO.8


PC 5V is not output.
Is 5V voltage supplied at emitter of Q9054?
NO
Check the AT 5V line.
YES
Is voltage of 5V sent out from the collector of Q9054?
YES
Check for load circuit short-circuiting or leak.
NO
Check the Q9054 periphery circuit.
YES
Does the P-CON switch circuit is operate normally? (Q9056-7, D9054, D9053, etc.)
NO
Check each component and if poor the replace.
YES
Are the "H" pulse inputted into the pin(9) of IC8201?
NO
Check or replace D9091-8.
YES
Replace IC8201.

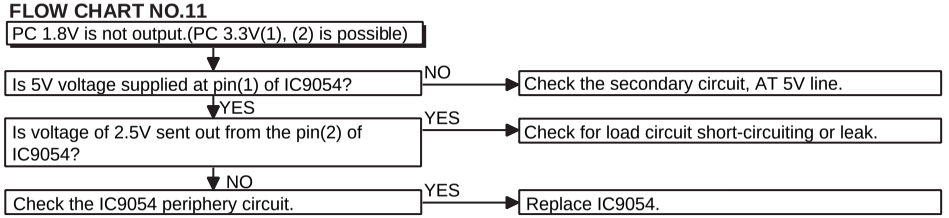
FLOW CHART NO.9


PC -19V is not output.
Is -19V voltage supplied at emitter of Q8202?
NO
Check the AT -19V line.
YES
Is voltage of -19V sent out from the collector of Q8202?
YES
Check for load circuit short-circuiting or leak.
NO
Check the Q8202 periphery circuit.
YES
Does the P-CON switch circuit is operate normally? (Q8201, etc.)
NO
Check each component and if poor the replace.
YES
Are the "H" pulse inputted into the pin(32) of IC8201?
NO
Check or replace D9091-8.
YES
Replace IC8201.

FLOW CHART NO.10


PC 3.3V(1), (2) is not output.
Is 5V voltage supplied at pin(1) of IC9053?
NO
Check the secondary circuit, AT 5V line.
YES
Is voltage of 3.3V sent out from the pin(2) of IC9053?
YES
Check for load circuit short-circuiting or leak.
NO
Check the IC9053 periphery circuit.
YES
Does the P-CON switch circuit is operate normally? (Q9056-7, D9054, D9053, etc.)
NO
Check each component and if poor the replace.
YES
Are the "H" pulse inputted into the pin(9) of IC8201?
NO
Check or replace D9091-8.
YES
Replace IC8201.

FLOW CHART NO.11


PC 1.8V is not output.(PC 3.3V(1), (2) is possible)
Is 5V voltage supplied at pin(1) of IC9054?
NO
Check the secondary circuit, AT 5V line.
YES
Is voltage of 2.5V sent out from the pin(2) of IC9054?
YES
Check for load circuit short-circuiting or leak.
NO
Check the IC9054 periphery circuit.
YES
Replace IC9054.

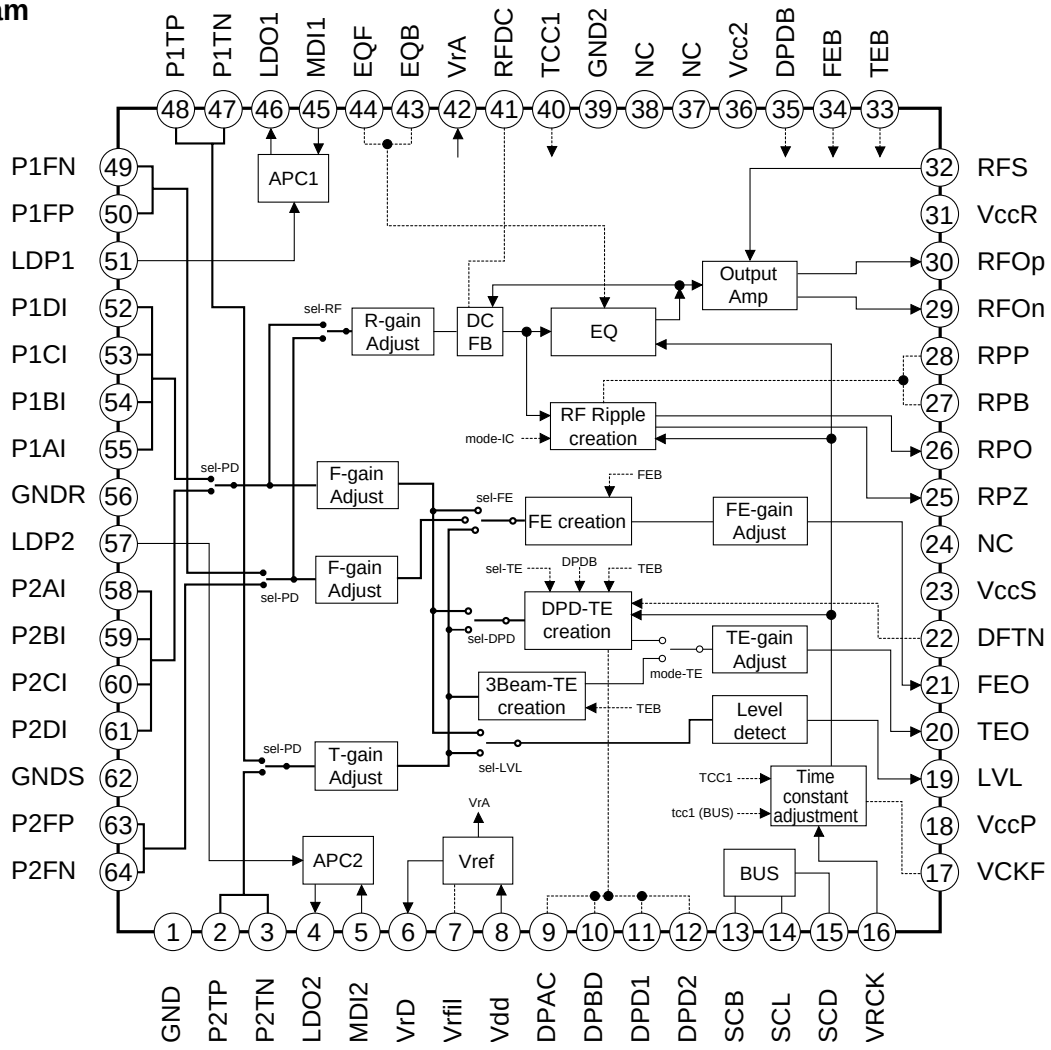
11. IC FUNCTION LIST

11-1. IC301 TA1323F RF PROCESSOR

Pin No.	Terminal name	I/O	Operation function	Terminal DC Voltage(TYP.)	Remarks
1	GND	–	GND terminal.	–	
2	P2TP	I	TE+input (CD)	VrA	
3	P2TN	I	TE–input (CD)	VrA	
4	LDO2	O	Drive ouput 2	–	
5	MDI2	I	Monitor input 2	–	
6	VrD	O	Digital VREF	–	Vdd/2 output (1.65V)
7	Vrfil	–	Filter capacity for reference	–	
8	Vdd	I	Power terminal	–	3.3V is connected.
9	DPAC	–	DPD AC combination capacity 1	–	
10	DPBD	–	DPD AC combination capacity 2	–	
11	DPD1	–	DPD integral capacity 1	–	
12	DPD2	–	DPD integral capacity 2	–	
13	SCB	I	Control line (Bit clock)	2.2[V]	
14	SCL	I	Control line (Latch signal)	2.2[V]	
15	SCD	I	Control line (Sirial Data)	2.2[V]	
16	VRCK	I	Reference clock input	2.3[V]	When frequency is increased, the filters excepting the servo LPF are shifted to high frequency side.
17	VCKF	–	Capacity for VRCK time constant adjustment	–	
18	VccP	–	Power terminal	–	
19	LVL	O	Servo addition output	VrD/2	
20	TEO	O	TE output	VrD	
21	FEO	O	FE output	VrD	
22	DFTN	I	DPD difect	–	Low DPD output: Mute
23	VccS	–	Power terminal (servo)	–	
24	NC	–	–	–	Used in the open state.
25	RPZ	O	RF ripple output 2	VrD	
26	RPO	O	RF ripple output 1	VrD/2	
27	RPB	–	RF ripple bottom	–	
28	RPP	–	RF ripple peak	–	
29	RFOn	O	Equivalent RF output (Differential output)	1.65[V]	DC voltage varies by RFS.
30	RFOp	O	Equivalent RF output (Differential output)	1.65[V]	DC voltage varies by RFS.
31	VccR	–	Power terminal (RF)	–	
32	RFS	I	RF slice level adjustment	–	
33	TEB	I	TE balance	VrD	When TEB is raised, the gain on the TP side and the delay amount on the A+C side are increased. Adjusting range: GND - Vdd
34	FEB	I	FE balance	VrD	When FEB is raised, the gain on the A+C (FP) side is increased. Adjusting range: GND - Vdd
35	DPDB	I	Pit depth adjustment	VrD	When DPDB is raised, the delay amount on the A•B side is increased. Adjusting range: GND - Vdd
36	Vcc2	–	Power terminal	–	
37	NC	–	–	–	Used in the open state.
38	NC	–	–	–	Used in the open state.
39	GND2	–	GND terminal.	–	
40	TCC1	I	Time constant adjustment	–	
41	RFDC	–	DC feedback capacity	–	
42	VrA	O	Analog VREF	2.1[V]	
43	EQB	I	Boost adjustment	VrD	When EQB is raised, the boost increases. Adjusting range: GND - Vdd

Pin No.	Terminal name	I/O	Operation function	Terminal DC Voltage(TYP.)	Remarks
44	EQF	I	Frequency adjustment	VrD	When EQF is raised, shift to the high frequency side occurs. Adjusting range: GND - Vdd
45	MDI1	I	Monitor input 1	–	
46	LDO1	O	Drive output 1	–	
47	P1TN	I	TE–input (DVD)	VrA	
48	P1TP	I	TE+input (DVD)	VrA	
49	P1FN	I	FE–input (DVD)	VrA	
50	P1FP	I	FE+input (DVD)	VrA	
51	LDP1	I	APC polarity 1	–	Positive polarity when this terminal is connected to Vcc.
52	P1DI	I	D input (DVD)	VrA	
53	P1CI	I	C input (DVD)	VrA	
54	P1BI	I	B input (DVD)	VrA	
55	P1AI	I	A input (DVD)	VrA	
56	GNDR	–	GND terminal (RF)	–	
57	LDP2	I	APC polarity 2	–	Positive polarity when this terminal is connected to Vcc.
58	P2AI	I	A input (CD)	VrA	
59	P2BI	I	B input (CD)	VrA	
60	P2CI	I	C input (CD)	VrA	
61	P2DI	I	D input (CD)	VrA	
62	GNDS	–	GND terminal (Servo)	–	
63	P2FP	I	FE+input (CD)	VrA	
64	P2FN	I	FE–input (CD)	VrA	

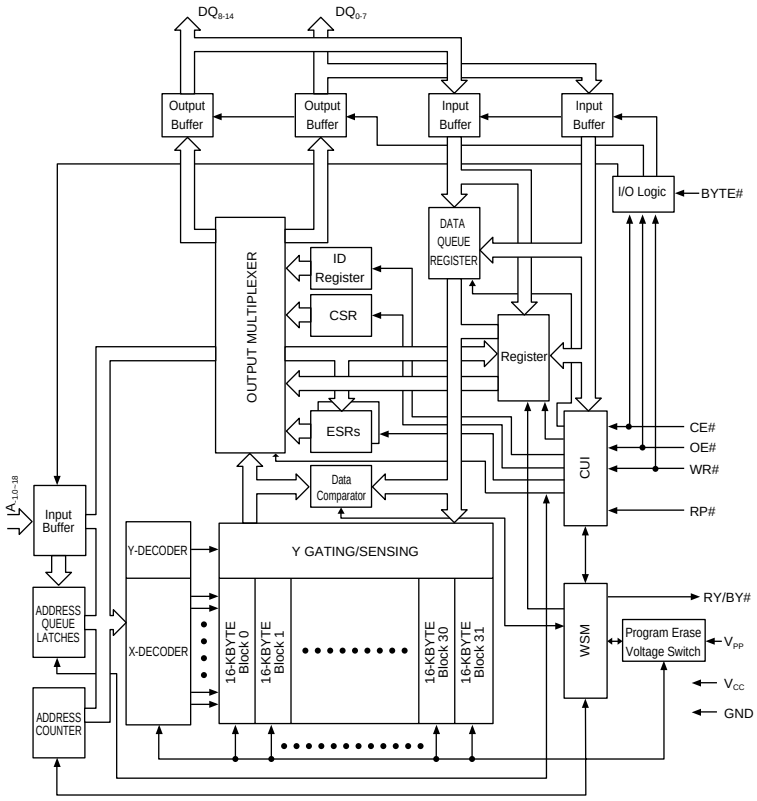
• Block Diagram



11-2. IC501 IX1689GE FLASH MEMORY

Pin No.	Symbol	Type	Name and function
45	DQ_{15}/A_{-1}	Input	Byte selection address: When the device is in the x8 mode, the low or high order byte is selected. It is not used in the x16 mode. (If BYTE# is high, DQ_{15}/A_{-1} input circuit does not operate.)
25-18, 8-4	A_0-A_{12}	Input	Word selection address: Selection of one word of 16k byte block. These addresses are latched during data wiring operation.
3-1, 48, 16, 17	A_{13}-A_{18}	Input	Block selection address: Selection of 1/32 erase block. These addresses are latched during data writing, erasing and lock block operation.
29, 31, 33, 35, 38, 40, 42, 44	DQ_0-DQ_7	Input/Output	Low order byte data input/output: Command user interface writing cycle data and command input. Various data read memory identifier and status data output Chip nonselection or output disable: Float state
30, 32, 34, 36, 39, 41, 43, 45	DQ_8-DQ_{14}	Input/Output	High order byte data input/output: The function is the same as that of low order byte data input/output. Operative only in x16 mode. x8 mode: Float state DQ_{15}/A_{-1} is address.
26	CE#	Input	Chip enable: Device control logic, input buffer, decoder and sense amp. are activated. Chip becomes active only when CE# is “Low”.
12	RP#	Input	Reset/Power down: If RP# is set to “Low”, the control circuit is initialized when power is turned on. Hence, the RP#pin is set to “Low”. When power is turned on or off or in case of fluctuation it is kept at “Low” so as to protect data from noise. When RP# is in “Low” state, the device is in deep power down state. 480 ns is required to recover from the deep power down state. If the RP# pin becomes “Low”, the whole chip operation is interrupted and reset. After recovery the device is set to array read state.
28	OE#	Input	Output enable: When OE# is set to “Low”, data is output from the DQ pin. When OE# is set to “High”, the DQ pin is set to float state.
11	WR#	Input	Write enable: Command user interface, data Q register and address Q latch access is controlled. In “Low” state WR# becomes active. At rise edge the address and data are fetched.
14	WP#	Input	Write protection: Blanking/writing to the boot block area is input of prohibition control. Blanking to the boot block area and writing actuation can't be executed at the time of WP#=V_{IL}.
15	RY/BY#	Output	Ready/busy: The state of internal write state machine is output. In “Low” state it is indicated that the write state machine is in operation. If the write state machine waits for next operation instruction, erase is suspended or it is in deep power down state, the RY/BY# pin is in float state.
47	BYTE#	Input	Byte enable: When BYTE# is set to “Low”, the device is set to the x8 mode. At this time the DQ_8-DQ_{15} pin becomes float state. Address A_{-1} selects high order/low order byte. When BYTE# is “High”, the device is set to the x16 mode. The A_{-1} input circuit is disabled.
13	Vpp	———	Write/erase power supply: 5.0 ± 0.5V is applied during writing/erasing.
37	Vcc	———	Device power supply: 5.0 ± 0.5V
27, 46	GND	———	Ground
9, 10	NC	———	Nonconnection

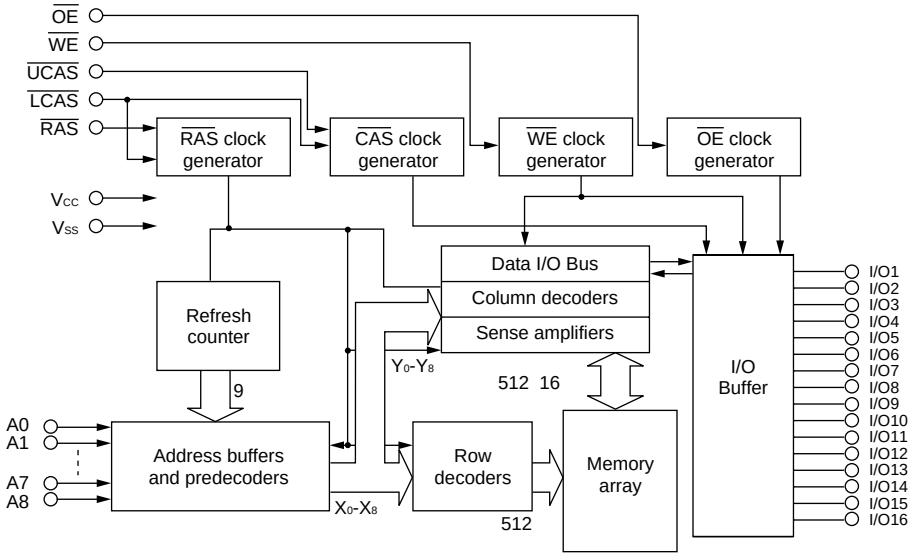
• Block Diagram



11-3. IC502 IX1765GE 4M EDO DRAM

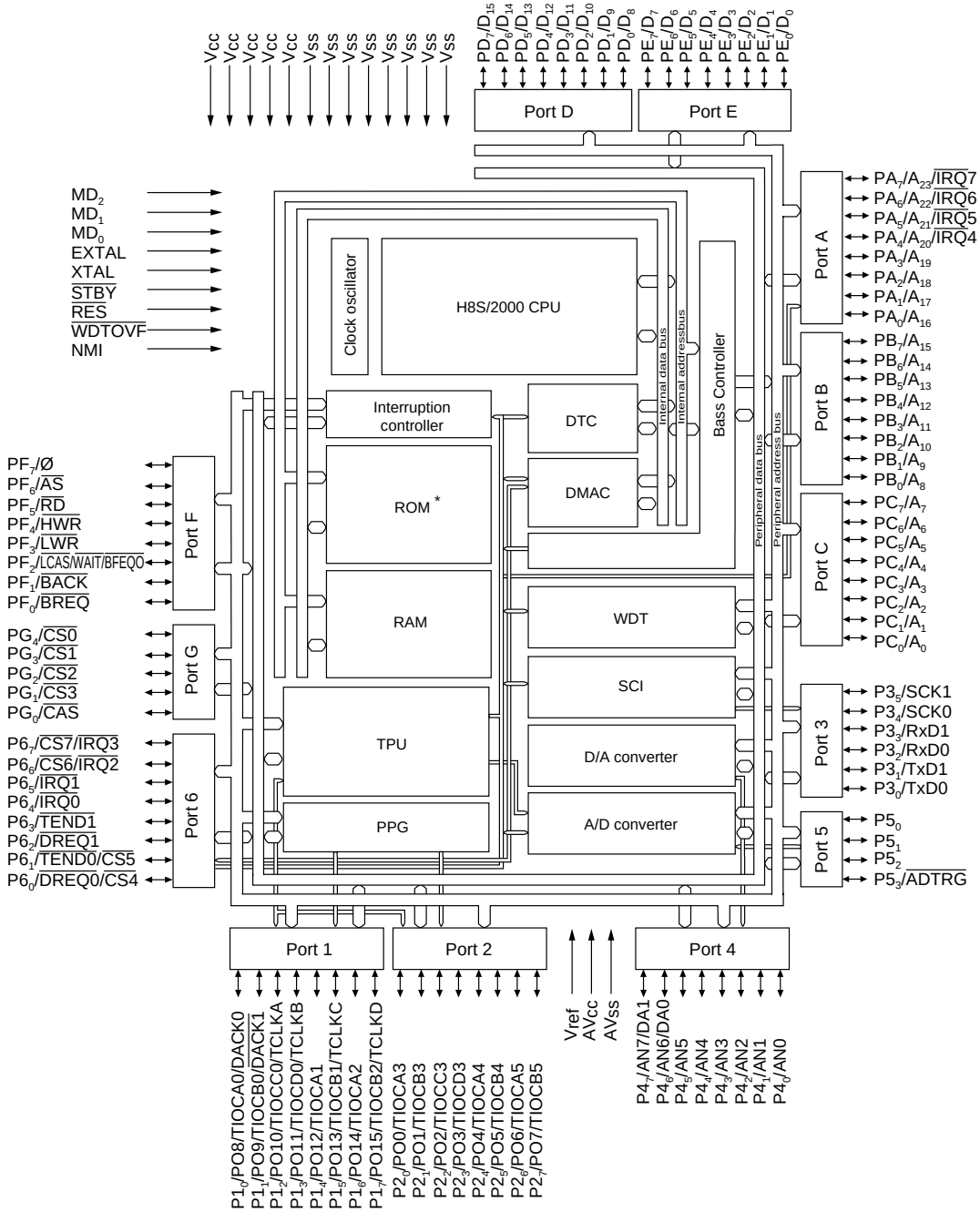
Terminal	Terminal name	Function
16-19, 22-26	A_0-A_8	Address inputs.
14	$\overline{RAS}$	Row address strobe.
28	$\overline{UCAS}$	Column address strobe/upper byte control.
29	$\overline{LCAS}$	Column address strobe/lower byte control.
13	$\overline{WE}$	Write enable.
27	$\overline{OE}$	Output enable.
2-5, 7-10 31-34, 36-39	DQ_1-DQ_{16}	Data inputs/outputs.
1, 6, 20	V_{CC}	+3.3V power supply.
21, 35, 40	V_{SS}	0V ground.
11-12, 15, 30	NC	No connection.

• Block Diagram



11-4. IC504 IX1687GE MICRO COM.

• Block Diagram

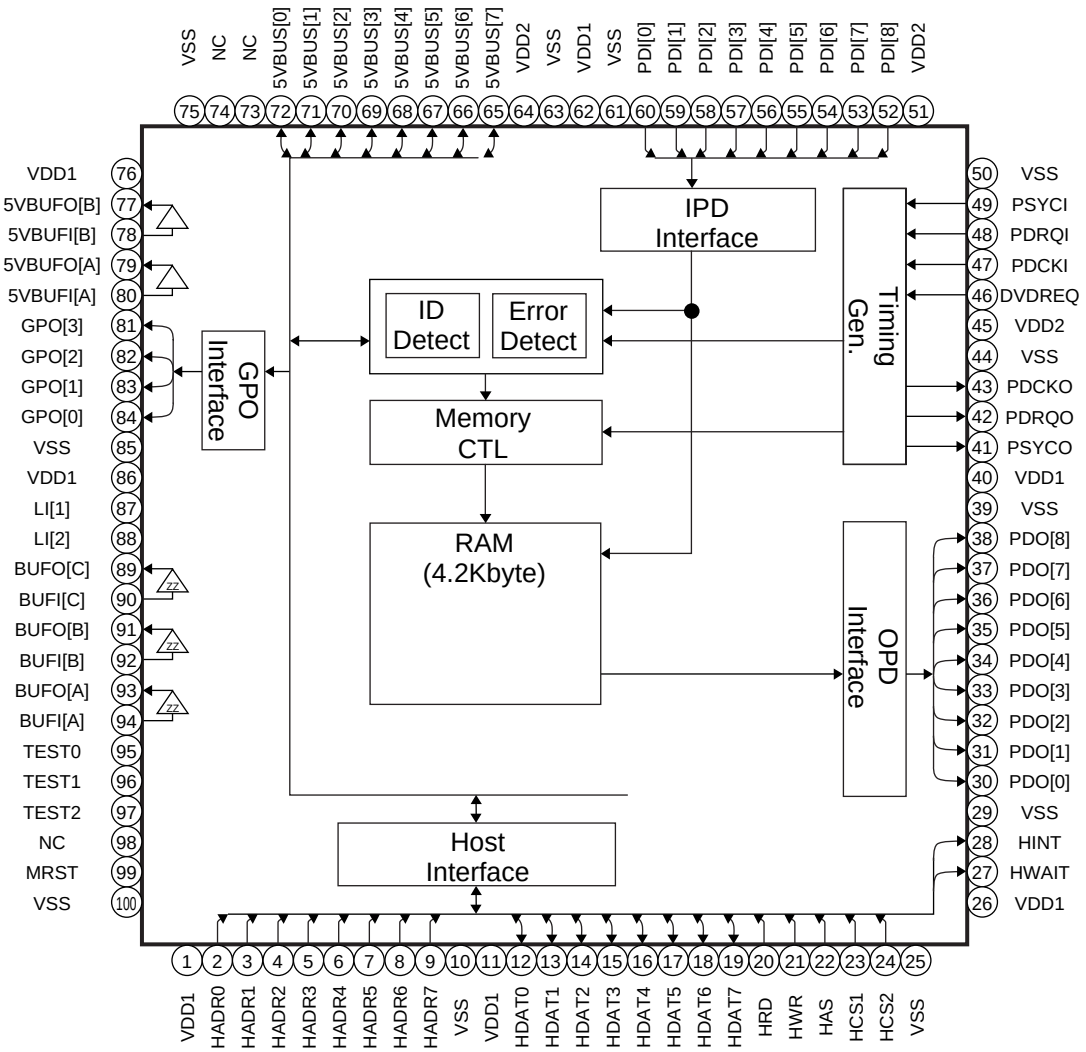


11-5. IC508 IX1761GE TRACK BUFFER INTERFACE

Pin No.	Terminal name	I/O	Operation function
1	VDD1	Supply	Digital power supply +3.3V
2	HADR0	Input	CPU Address bus
3	HADR1	Input	CPU Address bus
4	HADR2	Input	CPU Address bus
5	HADR3	Input	CPU Address bus
6	HADR4	Input	CPU Address bus
7	HADR5	Input	CPU Address bus
8	HADR6	Input	CPU Address bus
9	HADR7	Input	CPU Address bus
10	VSS	Supply	Digital GND
11	VDD1	Supply	Digital power supply +3.3V
12	HDAT0	In/Output	CPU Data bus
13	HDAT1	In/Output	CPU Data bus
14	HDAT2	In/Output	CPU Data bus
15	HDAT3	In/Output	CPU Data bus
16	HDAT4	In/Output	CPU Data bus
17	HDAT5	In/Output	CPU Data bus
18	HDAT6	In/Output	CPU Data bus
19	HDAT7	In/Output	CPU Data bus
20	HRD	Input	CPU Read signal
21	HWR	Input	CPU write signal
22	HAS	Input	CPU address strobe
23	HCS1	Input	CPU chip select signal 1 (Track Buffer Operation)
24	HCS2	Input	CPU chip select signal 2 (bus Voltage Transfer)
25	VSS	Supply	Digital GND
26	VDD1	Supply	Digital power supply +3.3V
27	HWAIT	Output	CPU wait signal (Open drain)
28	HINT	Output	CPU interrupt signal (Open drain)
29	VSS	Supply	Digital GND
30	PDO[0]	Output	Output DVD/CDdata
31	PDO[1]	Output	Output DVD/CDdata
32	PDO[2]	Output	Output DVD/CDdata
33	PDO[3]	Output	Output DVD/CDdata
34	PDO[4]	Output	Output DVD/CDdata
35	PDO[5]	Output	Output DVD/CDdata
36	PDO[6]	Output	Output DVD/CDdata
37	PDO[7]	Output	Output DVD/CDdata
38	PDO[8]	Output	Output DVD/CDdata
39	VSS	Supply	Digital GND
40	VDD1	Supply	Digital power supply +3.3V
41	PSYCO	Output	Output data selector sync signal
42	PDRQO	Output	Output data transfer block signal
43	PDCKO	Output	Output data transfer clock
44	VSS	Supply	Digital GND
45	VDD2	Supply	Digital power supply +5V
46	DVDREQ	Input	Request signal input
47	PDCKI	Input	Input data transfer clock
48	PDRQI	Input	Input data transfer block signal
49	PSYCI	Input	Input data selector sync signal
50	VSS	Supply	Digital GND
51	VDD2	Supply	Digital power supply +5V

Pin No.	Terminal name	I/O	Operation function
52	PDI[8]	Output	Input DVD/CD data
53	PDI[7]	Output	Input DVD/CD data
54	PDI[6]	Output	Input DVD/CD data
55	PDI[5]	Output	Input DVD/CD data
56	PDI[4]	Output	Input DVD/CD data
57	PDI[3]	Output	Input DVD/CD data
58	PDI[2]	Output	Input DVD/CD data
59	PDI[1]	Output	Input DVD/CD data
60	PDI[0]	Output	Input DVD/CD data
61	VSS	Supply	Digital GND
62	VDD1	Supply	Digital power supply +3.3V
63	VSS	Supply	Digital GND
64	VDD2	Supply	Digital power supply +5V
65	5VBUS[7]	In/Output	CPU bus 5V conversion input/output
66	5VBUS[6]	In/Output	CPU bus 5V conversion input/output
67	5VBUS[5]	In/Output	CPU bus 5V conversion input/output
68	5VBUS[4]	In/Output	CPU bus 5V conversion input/output
69	5VBUS[3]	In/Output	CPU bus 5V conversion input/output
70	5VBUS[2]	In/Output	CPU bus 5V conversion input/output
71	5VBUS[1]	In/Output	CPU bus 5V conversion input/output
72	5VBUS[0]	In/Output	CPU bus 5V conversion input/output
73	NC	–	Not Connect
74	NC	–	Not Connect
75	VSS	Supply	Digital GND
76	VDD1	Supply	Digital power supply +3.3V
77	5VBUFO[B]	Output	5V buffer output B
78	5VBUFI[B]	Output	5V buffer input B (3.3V input)
79	5VBUFO[A]	Output	5V buffer output A
80	5VBUFI[A]	Output	5V buffer input A (3.3V input)
81	GPO[3]	Output	General-purpose output terminal (CPU control)
82	GPO[2]	Output	General-purpose output terminal (CPU control)
83	GPO[1]	Output	General-purpose output terminal (CPU control)
84	GPO[0]	Output	General-purpose output terminal (CPU control)
85	VSS	Supply	Digital GND
86	VDD1	Supply	Digital power supply +3.3V
87	LI[1]	Input	Gate Input[1]
88	LI[2]	Input	Gate Input[2]
89	BUFO[C]	Output	Schmitt trigger buffer output C
90	BUFI[C]	Input	Schmitt trigger buffer input C
91	BUFO[B]	Output	Schmitt trigger buffer output B
92	BUFI[B]	Input	Schmitt trigger buffer input B
93	BUFO[A]	Output	Schmitt trigger buffer output A
94	BUFI[A]	Input	Schmitt trigger buffer input A
95	TEST0	Input	Test terminal 0 (Normal: Low, Test: Hi) Function
96	TEST1	Input	Test terminal 1 (Normal: Low, Test: Hi) RAM
97	TEST2	Input	Test terminal 2 (Normal: Low, Test: Hi) Pin
98	NC	–	Not Connect
99	MRST	Input	27MHz Input terminal
100	VSS	Supply	Digital GND

• Block Diagram



11-6. IC601 IX1720GE AV DECODER

• Terminal description

Name	Type	Description
Host interface, CD-DSP interface, sub-code interface (32-pin)		
RESET#	ID	Reset input (active Low). When shifting from the assert state to deassert state, initialization process of this device is started.
STANDBY#	ID	Stand-by input (active Low). When asserting with RESET#, all of output pins and bidirectional pins enter the float state, and this device is electrically separated from periphery. All internal operations are stopped and the power consumption is minimized. In the stand-by mode, the contents of SDRAM and setup parameter are not retained.
IDLE	O(p.u.)	Idle, Init, or Reset state display output (active High). It enters the active state after resetting.
HWID	ID	Data bus width of the host interface is determined. It can be changed during resetting only. The host interface of the device is set to 8 bits at the low level (GNDP) and 16 bits at the high level (VDDP).
HORD	ID	When the width is 16 bits (HWID is VDDP), byte order of the host interface data bus is determined. It can be changed during resetting only. The device is set to input/ output m.s. byte HD at [15:8] at the low level (GNDP), and m.s. byte at [7:0] at the high level. When HWID is at the GNDP level, it is connected to GNDP.
HTYPE	ID	Protocol of the host bus is determined. It can be changed during resetting only. The device is set to A type at the low level (GNDP) and B type at the high level (VDDP).
HD[7:0] (HD[7:4]) (HD[3]) (HD[2:1]) (HD[0])	I/O (r.t.) (p.u.) (r.t.) (p.u.)	8 I.s. of the host data bus. When HWID input is connected to GNDP, only this signal is defined as the host data signal. When HWID is connected to VDDP, it is used as an 8 I.s. line of 16-bit data bus.
HD[11:8] (HD[11]) (HD[10:8])	I/O (p.d.) (r.t.)	When HWID is connected to VDDP, it is used as a data line 11:8 of the 16-bit host data bus.
HD[15:12] CDCLK (HD[12]) CDDAT (HD[13]) CDFRM (HD[14) CDERR (HD[15])	I/O(r.t.) I I I I	When HWID is connected to VDDP, it is used as a data line 15:12 of the 16-bit host data bus. When HWID is connected to GNDP, it is used as a the CD-DSP serial input port pin as defined below. CD-DSP bit clock input CD-DSP data input CD-DSP LR clock (frame) input CD-DSP data error input
HA[3:0]	I	Host address input. The address signal specifying the physical address in this device is input.
HCS#	I	Host chip select input. Active Low.
HWR# (HR/W#)	I	Host protocol A type (HTYPE=GNDP): HR/W#. This input determines the direction of the host access. Host protocol B type (HTYPE=VDDP): HWR#. Host write input (active Low).
HRD# (HDS)	I	Host protocol A type (HTYPE=GNDP): HDS#. Data strobe input (active Low). \Host protocol B type (HTYPE=VDDP): HRD#. Host read input (active Low).

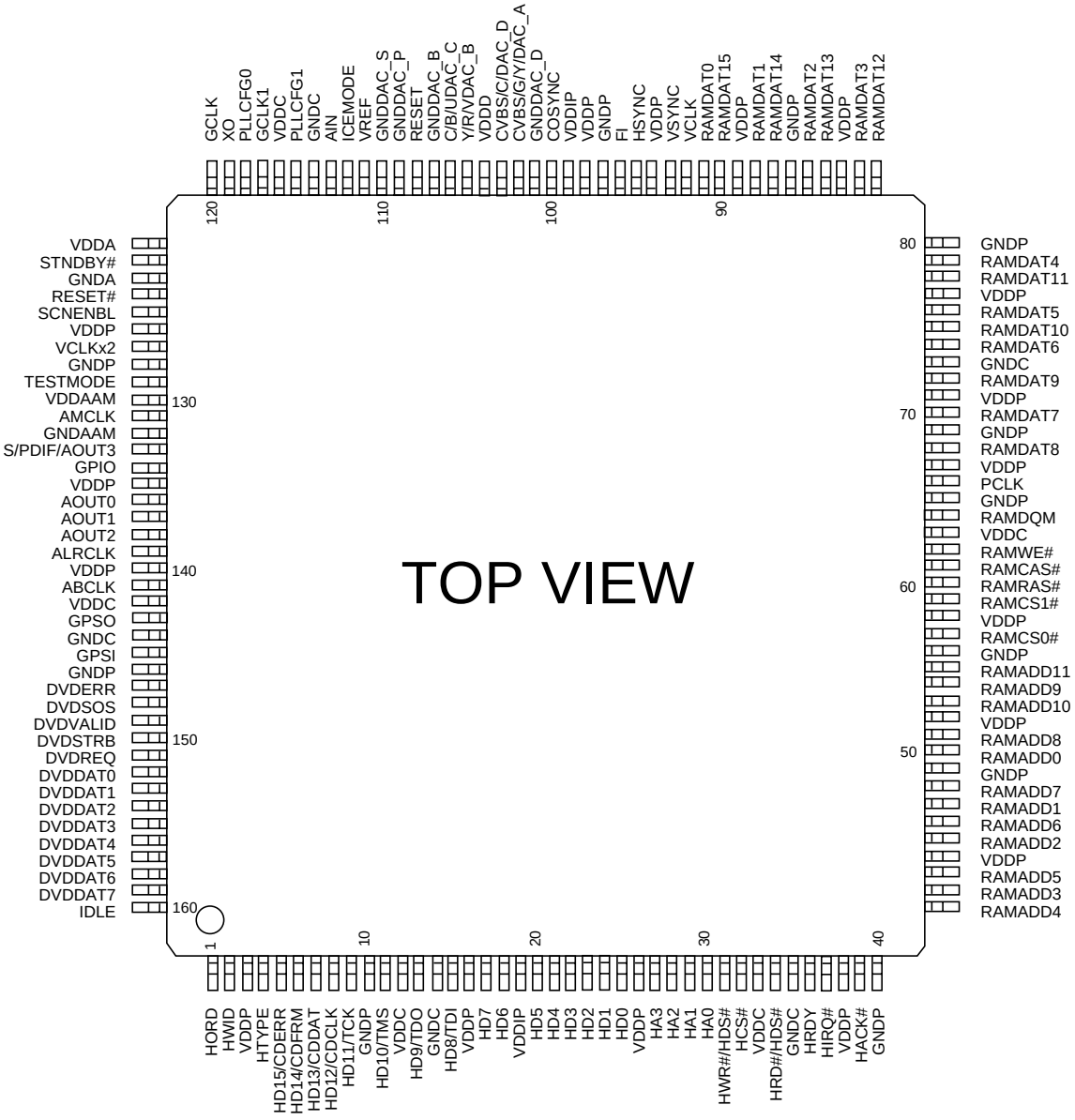
Glossary

I	Input	O	Output	I/O	Bidirectional
AI	Analog input	AO	Analog output	AI/O	Analog bidirectional
ID	Input not synchronized with PCLK	p.u.	Terminal internally pulled up	p.d.	Terminal internally pulled down
r.t.	Retained terminal				

Name	Type	Description
Host interface, CD-DSP interface, sub-code interface (32-pin)...continued		
HRDY	O(p.d.)	Host ready output (active High). Use this signal when the stream is transferred via the host bus. External pull-up resistor is required. Prior to transfer of each packet (1 packet: length in CodBurstLen bytes), make sure that this signal is in the active state, and then bit streams of CodBurstLen byte long or shorter can be written on this device consecutively.
HIRQ#	O(p.u.)	Interrupt request (active Low). This is deasserted when the host reads the interrupt status register of this device and also when the host masks or resets the interrupt using the interrupt mask register. When HIRQ# is not asserted, it enters the 3-state mode. (External pull-up resistor is required.)
HACK#	O(p.u.)	Host acknowledge output (active Low). When the protocol is A type, the device asserts this output and notifies the completion of read or write cycle. When this signal is not active, it enters the 3-state mode. (External pull-up resistor is required.) When the protocol is B type, this signal functions as a wait output signal. If the high-speed host (microcomputer) is used, this signal may not have to be connected.
GPI/O signal (3-pin)		
GPIO	I/O(r.t.)	General-purpose bidirectional pin monitored and controlled by the ADP micro code. After resetting, this pin is defined as an input. It can be set by using the ADP command.
GPSI	I	General-purpose input monitored by the DVP micro code.
GPSO	O(p.d.)	General-purpose output controlled by the DVP micro code. After resetting, output from this pin is switched to Low.
PLL signal (5-pin)		
GCLK	ID	27,000 MHz clock or crystal input for main processor.
GCLK1	ID	27,000 MHz master clock input for audio. Normally, this must be connected to GCLK.
XO	AO	Output to crystal connected to GCLK. If the crystal is not used for GCLK, nothing must be connected to XO.
PLLCFG[1:0]	ID	PLL configuration input. It can be changed only during resetting. Normally, both pins must be connected to GNDP.
Analog video port (7-pin)		
CVBS/G/Y (DAC A)	AO	For CVBS, the composite video signal is output. For RGB, the G signal is output. For YUV, the Y signal is output.
Y/R/V (DAC B)	AO	For CVBS, the Y signal is output. For RGB, the R signal is output. For YUV, the V signal is output.
C/B/U (DAC C)	AO	For CVBS, the C signal is output. For RGB, the B signal is output. For YUV, the U signal is output.
CVBS/C (DAC D)	AO	The CVBS or C signal is selected and output.
RSET	AI	Resistance load for DAC gain adjustment is inserted between GND and DAC.
VREF	AI	Reference voltage for DAC gain adjustment is input.
COSYNC	O(p.d.)	Composite sync output. Effective only when the RGB analog output is selected. Otherwise, it is fixed to Low.
Digital video port (5-pin)		
VCLKx2	I/O(r.t.)	Main video clock input or output. 27,000 MHz.
VCLK	I/O(r.t.)	Divided VCLKx2 signal. Used as a qualifier of data and sync signal.
HSYNC	I/O(r.t.)	Horizontal sync bidirectional signal pin. Its polarity and length are programmable.
VSYNC	I/O(r.t.)	Vertical sync bidirectional signal pin. Its polarity and length are programmable.
FI	I/O(r.t.)	Field identification bidirectional signal pin. Its polarity is programmable.

Name	Type	Description
Digital audio port (8-pin)		
AMCLK	I/O(p.u.)	Audio master clock I/O. Sampling frequency can be selected among 384fs, 256fs, 192fs, and 128fs (programmable).
S/PDIF (AOUT[3])	O(p.d.)	S/PDIF transmitter output. It can be connected to DAC as the fourth audio output (AOUT [3]). After resetting, this pin outputs the low-level signal.
AOUT[2:0]	O(p.d.)	Serial output of PCM stereo audio for DAC. After resetting, this pin outputs the low-level signal.
AIN	I	Serial input of PCM stereo audio for ADC.
ALRCLK	O(p.d.)	LR clock output of AOUT [4:0] and AIN. The square wave is formed with the sampling frequency. The LR polarities are programmable.
ABCLK	O(p.d.)	Bit clock output of AOUT [4:0] and AIN. AOUT is output to this clock in the leading and trailing edges (programmable) and AIN is latched.
DVD-DSP interface (13-pin)		
DVDREQ	O(p.d.)	DVD-DSP data request output (polarity programmable).
DVDVALID	I	DVD-DSP data effective input (polarity programmable).
DVDSOS	I	DVD-DSP data sector start input (polarity programmable).
DVDDAT[7:0]	I	DVD-DSP data input bus.
DVDSTRB	ID	DVD-DSP data bit strobe (clock) input. Polarity programmable.
DVDERR	I	DVD-DSP error input. Polarity programmable.
SDRAM interface (35-pin)		
RAMDAT [15:0]	I/O(r.t.)	SDRAM bidirectional data bus.
RAMADD [11:0]	O(p.d.)	SDRAM address bus output.
RAMRAS#	O(p.u.)	SDRAM row selection (active Low) output.
RAMCAS#	O(p.u.)	SDRAM column selection (active Low) output.
PCLK	O(p.d.)	SDRAM clock output (same as the internal processing clock).
RAMDQM	O(p.d.)	SDRAM data masking (active High) output.
RAMCS0#	O(p.u.)	SDRAM chip select (active Low) output. Lower 2 Mbyte device.
RAMCS1#	O(p.u.)	SDRAM chip select (active Low) output. Upper 2 Mbyte device.
RAMWE#	O(p.u.)	SDRAM write enable (active Low) output.
TEST signal (pin 3)		
SCNENBL	ID	Test pin. Normally connected to GNDP.
TESTMODE	ID	Test pin. Normally connected to GNDP.
ICEMODE	ID	Test pin. Normally connected to VDDP.
Power signal (49-pin)		
GNDP	S	Ground for 3.3V digital power supply.
VDDP	S	3.3V digital power supply
VDDIP	S	3.3V digital power supply
GNDAAM	S	Ground for PLL power supply for 3.3V AMCLK generation.
VDDAAM	S	PLL power supply for 3.3V AMCLK generation.
GNDC	S	Ground for 1.8V digital power supply.
VDDC	S	1.8V digital power supply.
GNDA	S	Ground for PLL power supply for 1.8V internal clock generation.
VDDA	S	PLL power supply for 1.8V internal clock generation.
VDDD	S	Analog power supply for 3.3V video DAC.
GNDDAC [D,B,P,S]	S	Ground for Analog power supply for 3.3V video DAC.

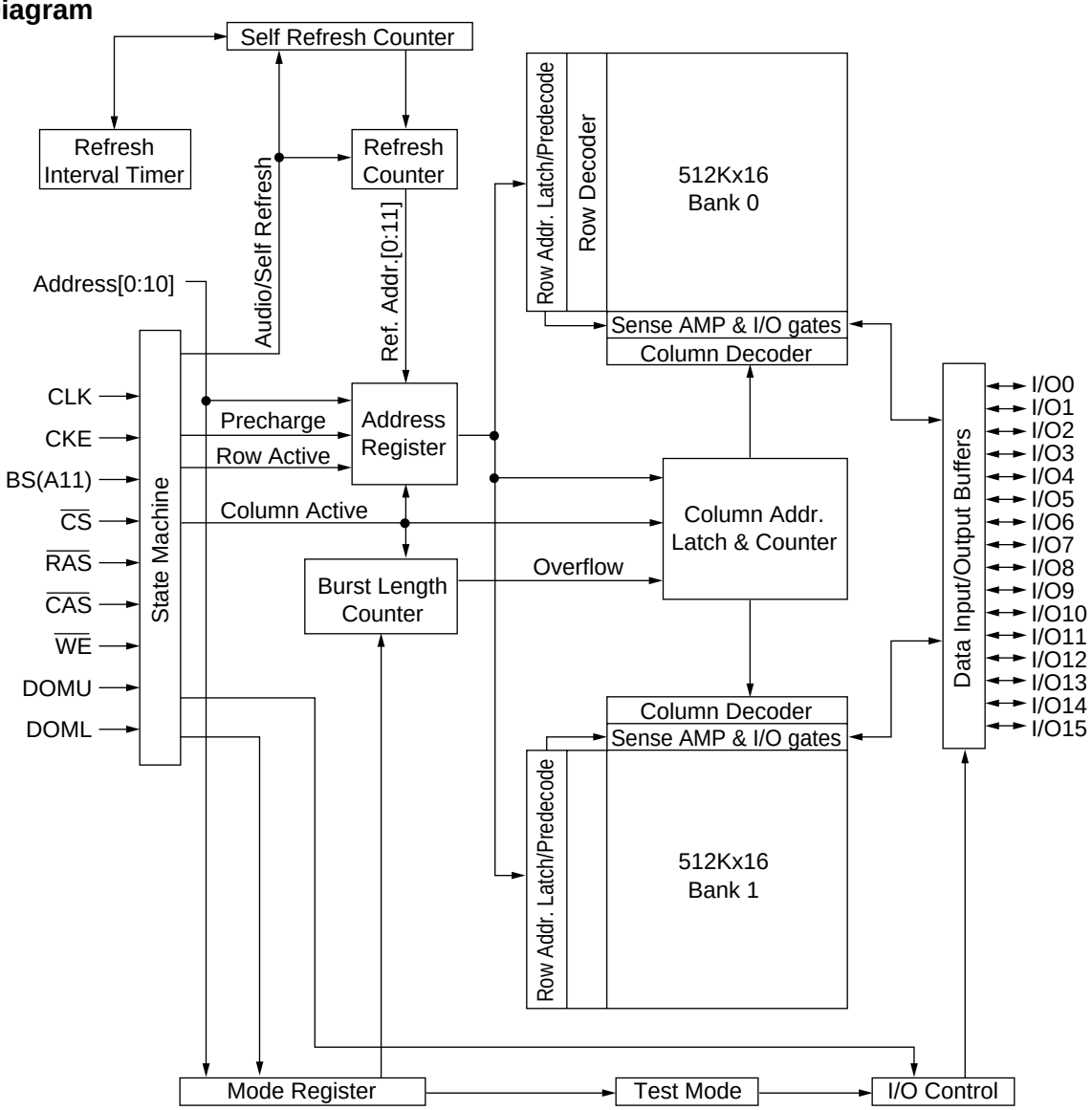
• Block Diagram



11-7. IC602-3 IX3455CE 16M SDRAM

Pin No.	Terminal Name	Name	Input Function
35	CLK	Clock	The system clock input. All other inputs are referenced to the SDRAM on the rising edge of CLK.
34	CKE	Clock Enable	Controls internal clock signal and when deactivated, the SDRAM will be one of the states among power down, suspend or self refresh.
18	$\overline{CS}$	Chip Select	Command input enable or mask except CLK, CKE and DOM
19	BS	Bank Address	Select either one of banks during both $\overline{RAS}$ and $\overline{CAS}$ activity.
20~24 27~32	A0~A10	Address	Row Address: RA0~RA10, Column Address: CA0~CA7
17, 16, 15	$\overline{RAS}$, $\overline{CAS}$, $\overline{WE}$	Row Address Strobe, Column Address Strobe, Write Enable	$\overline{RAS}$, $\overline{CAS}$ and $\overline{WE}$ define the operation. Refer function truth table for details.
14, 36	DOML, DOMU	Data Input/Output Mask	DOM control output buffer in read mode and mask input data in write mode.
2, 3, 5, 6, 8, 9, 11, 12, 39, 40, 42, 43, 45, 46, 48, 49	I/O0~15	Data Input/Output	Multiplexed data input/output pin
1, 25, 26	VCC/VSS	Power Supply/Ground	Power supply for internal circuit and input buffer.
4, 7, 10, 13, 38, 41, 44, 47, 50	VCCO/VSSO	Data Output Power/Ground	Power supply for DO
33, 37	NC	No Connection	No connection

• Block Diagram



11-8. IC701 TC94A03F SERVO/DATA PROCESSOR

Pin No.	Terminal Name	In/Output	Operation function	3/5V system	Remarks
1	ASLCN	Output	Data slice negative pole output	3V system	Analog output terminal
2	ASLCO	Output	Analog data slice output (Digital slice output enabled at differential input)	3V system	Analog output terminal
3	DVSS	–	Ground for DAC only	–	
4	RO	Output	R-ch output signal	3V system	Analog output terminal
5	DVDD	–	Power supply for DAC only	3V system	
6	DVR	Output	Amplifier reference signal output	3V system	Analog input terminal
7	LO	Output	L-ch output signal	3V system	Analog output terminal
8	DVSS	–	Ground for DAC only	–	
9	XVSS	–	Ground for oscillator only	–	
10	XI	Input	Crystal oscillation input	3V system	Analog input terminal
11	XO	Output	Crystal oscillation output	3V system	Analog output terminal
12	XVDD	–	Power supply for oscillator only	–	
13	TESM0	–	Test terminal	3V system	Connected to GND
14	TESM1	–	Test terminal	3V system	OPEN
15	TESM2	–	Test terminal	3V system	Connected to VDD3
16	VDD3	–	3.3V digital power	–	
17	VSS3	–	3.3V digital ground	–	
18	VPFC	Output	Clock PLL system phase/frequency comparative output	3V system	Analog output terminal
19	TEST0	Input	Test mode terminal	3V system	Connected to VDD3
20	VLPFI	Input	VCO system filter input for clock PLL	3V system	Analog input terminal
21	VLPFO	Output	VCO system filter output for clock PLL	3V system	Analog output terminal
22	VSS3	–	3.3V digital ground	–	
23	MON0	Output	Test monitor	3V system	
24	MON1				
25	MON2				
26	MON3				
27	MON4				
28	MON5				
29	MON6				
30	MON7				
31	MON8				
32	MON9				
33	VDD3	–	3.3V digital power	–	
34	NC	–		–	
35	NC				
36	TEST1	Input	Test mode terminal	3V system	Connected to VDD3
37	FLGA	In/Output	General-purpose I/O or flag monitor	5V system	
38	FLGB	In/Output	General-purpose I/O or flag monitor	5V system	
39	VSS3	–	3.3V digital ground	–	
40	/RST	Input	Reset terminal	5V system	Pull-up resistor built in
41	/MA	Input	Microcomputer address enable signal	5V system	Fail-safe terminal
42	/MRD	Input	Microcomputer data read signal	5V system	Fail-safe terminal
43	/MWR	Input	Microcomputer data write signal	5V system	Fail-safe terminal
44	/MCE	Input	Microcomputer chip enable signal	5V system	Fail-safe terminal
45	/MINT	Output	Microcomputer interrupt signal	5V system	Open drain terminal
46	MD0	In/Output	Microcomputer data buss	5V system	
47	MD1				
48	MD2				
49	MD3				
50	MD4				
51	MD5				
52	MD6				
53	MD7				
54	VDD5	–	5V power supply	–	

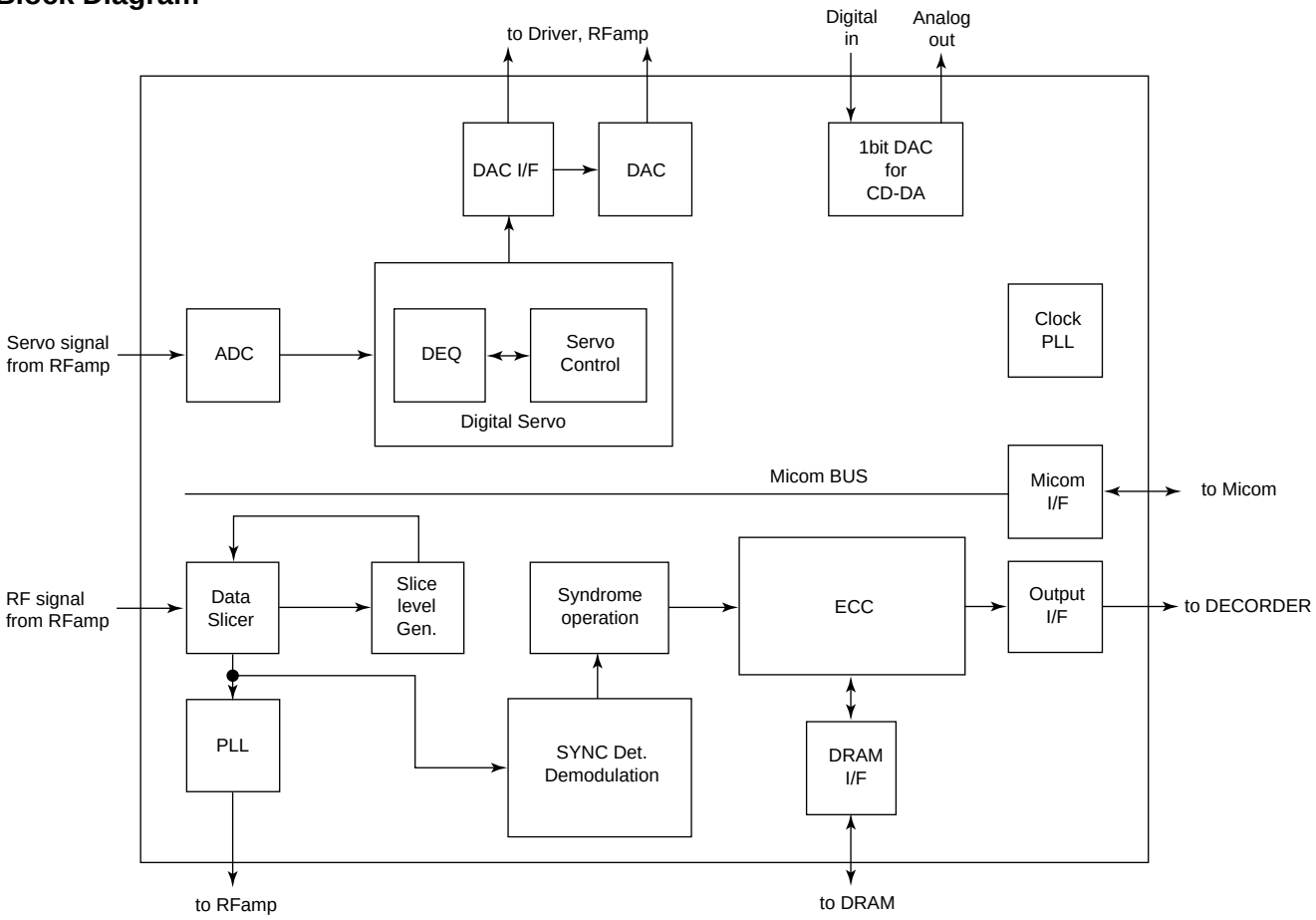
Pin No.	Terminal Name	In/Output	Operation function	3/5V system	Remarks
55	NC	–		–	
56	NC				
57	SMCK	Output	22M system clock output	5V system	
58	VMCK	Output	Data output system (signal processing system) clock output	5V system	
59	VDD3	–	3.3V digital power supply	–	
60	PD0	Output	DVD/CD data output	5V system	
61	VSS5	–	5V ground supply	–	
62	PD1	Output	DVD/CD data output	5V system	
63	PD2				
64	PD3				
65	PD4				
66	VSS3	–	3.3V digital ground	–	
67	PD5	Output	DVD/CD data output	5V system	
68	PD6				
69	PD7				
70	PD8				
71	/PSYC	Output	DVD data sector sync signal	5V system	
72	/PDRQ	Output	DVD data transfer block	5V system	
73	PDCK	Output	DVD data transfer block	5V system	
74	VDD5	–	5V power supply	–	
75	TESM3	–	Test terminal	5V system	Connected to VSS5
76	DIGI	Input	1 bit DAC digital IN input	5V system	
77	TESM4	–	Test terminal	5V system	Connected to VDD5
78	VDD3	–	3.3V digital power supply	–	
79	BA0	Output	External RAM address output	5V system	
80	BA1				
81	BA2				
82	BA3				
83	VSS5	–	5V ground supply	–	
84	BA4	Output	External RAM address output	5V system	
85	BA5				
86	BA6				
87	BA7				
88	BA8				
89	VDD3	–	3.3V digital power supply	–	
90	/BOE	Output	External RAM/OE signal	5V system	
91	/BRAS	Output	External RAM/RAS signal	5V system	
92	/BCAS	Output	External RAM/UCAS signal	5V system	
93	/BCASL	Output	External LCAS/WE signal	5V system	
94	/BWE	Output	External RAM WE signal	5V system	
95	VDD5	–	5V power supply	–	
96	BD0	In/Output	External RAM data I/O	5V system	
97	BD1				
98	BD2				
99	BD3				
100	BD4				
101	BD5				
102	BD6				
103	BD7				
104	BD8				
105	VSS3	–	3.3V digital ground	–	
106	BD9	In/Output	External RAM data I/O	5V system	
107	BD10				
108	BD11				
109	BD12				
110	VSS5	–	5V ground supply	–	

Pin No.	Terminal Name	In/Output	Operation function	3/5V system	Remarks
111	BD13	In/Output	External RAM data I/O	5V system	
112	BD14				
113	BD15				
114	NC	–		–	
115	NC				
116	VDD3	–	3.3V digital power supply	–	
117	PLCK	In/Output	PLL system clock I/O	3V system	
118	TESM5	–	Test terminal	3V system	Connected to GND
119	TESM6	–	Test terminal	3V system	Connected to GND
120	TESM7	–	Test terminal	3V system	OPEN
121	TESM8	–	Test terminal	3V system	OPEN
122	VSS3	–	3.3V digital ground	–	
123	CFC1	Output	VCO frequency control signal	3V system	Analog output terminal
124	CFC2	Output	VCO frequency control signal	3V system	Analog output terminal
125	PPW	Output	Phase comparator offset adjustment voltage output	3V system	Analog output terminal
126	PESV	Input	Phase comparator offset adjustment signal input	3V system	Analog input terminal
127	PVSS	–	Ground for 3.3V PLL system only	–	
128	PESP	Output	Phase comparator offset adjustment signal output	3V system	Analog output terminal
129	PDOP1	Output	DVD/CD phase control signal (positive polarity)	3V system	Analog output terminal
130	PDON1	Output	DVD/CD phase control signal (negative polarity)	3V system	Analog output terminal
131	PDOP2	Output	DVD/CD phase control signal (positive polarity)	3V system	Analog output terminal
132	PDON2	Output	DVD/CD phase control signal (negative polarity)	3V system	Analog output terminal
133	LPFN	Input	Data PLL low-pass filter inversion input	3V system	Analog input terminal
134	LPFO	Output	Data PLL low-pass filter output	3V system	Analog output terminal
135	PVREF	–	Reference power supply for data PLL system only	3V system	
136	VCOREF	Input	VCO reference	3V system	Analog input terminal
137	VCOF	Input	VCO self-adjusting filter output	3V system	Analog input terminal
138	PVDD	–	Power supply for 3.3V PLL system only	–	
139	RFOn	In/Output	Data slice 6-bit DAC output (RFOn input enabled at differential input)	3V system	Analog output terminal
140	TESM9	–	Test terminal	3V system	OPEN
141	TEST2	Input	Test mode terminal	3V system	Connected to VDD3
142	RFCD	Input	CD RF signal input (RFOp input enabled at differential input)	3V system	Analog input terminal
143	RFDVD	Input	DVD RF signal input (RFOp input enabled at differential input)	3V system	Analog input terminal
144	AVDD	–	Power supply for 3.3V analog system only	–	
145	RFCT	Input	RFRP center voltage output (zero cross import)	3V system	OPEN
146	RFZI	Input	RFRP zero cross signal input	3V system	Analog input terminal
147	TEZI	Input	Tracking error signal input (zero cross import)	3V system	Analog input terminal
148	AWIN	Input	Active wide PLL control signal input	3V system	Analog input terminal
149	AVSS	–	Ground for 3.3V analog system only	–	
150	FEI	Input	Focus error signal input	3V system	Analog input terminal
151	TEI	Input	Tracking error signal input	3V system	Analog input terminal
152	LVL	Input	RF level or sub beam signal add input	3V system	Analog input terminal
153	RFRP	Input	RFRP signal input	3V system	Analog input terminal
154	AVSS	–	Ground for 3.3V analog system only	–	
155	TESM10	–	Test terminal	3V system	Connected to VREF

Pin No.	Terminal Name	In/Output	Operation function	3/5V system	Remarks
156	EXTAD	Input	General-purpose external ADC input	3V system	Analog input terminal
157	VREF	–	Reference power supply for analog system only: 1.65V	3V system	
158	FOO	Output	Focus EQ output	3V system	Analog output terminal
159	TRO	Output	Tracking EQ output	3V system	Analog output terminal
160	AVDD	–	Power supply for 3.3V analog system only	–	
161	AWCTL	Output	Active wide PLL control output	3V system	Analog output terminal
162	FMO	Output	Feed EQ output	3V system	Analog output terminal
163	DMO	Output	Disc EQ output	3V system	Analog output terminal
164	TEBC	Output	Tracking balance control signal	3V system	Analog output terminal
165	FEBC	Output	Focus balance control signal	3V system	Analog output terminal
166	DPDC	Output	DPD error signal/pit depth adjustment signal	3V system	Analog output terminal
167	EQBC	Output	RF wide boost adjustment signal	3V system	Analog output terminal
168	ANMON	Output	General-purpose PWM output	3V system	Analog output terminal
169	/DFCT	Output	Black dot detection signal	3V system	
170	VRCK	Output	RF EQ property control clock	3V system	
171	VSS3	–	3.3V digital ground	–	
172	SCD	Output	Head amplifier serial data		
173	SCL	Output	Head amplifier serial data latch pulse	3V system	
174	SCB	Output	Head amplifier serial data clock	3V system	
175	FGIN	Input	Disc FG signal input (with self-bias circuit)	3V system	Feedback resistor Analog input terminal
176	ASLCP	Output	Data slice positive pole output	3V system	Analog output terminal

Note) Terminals with "/" at the beginning of their names are active "L" ones.

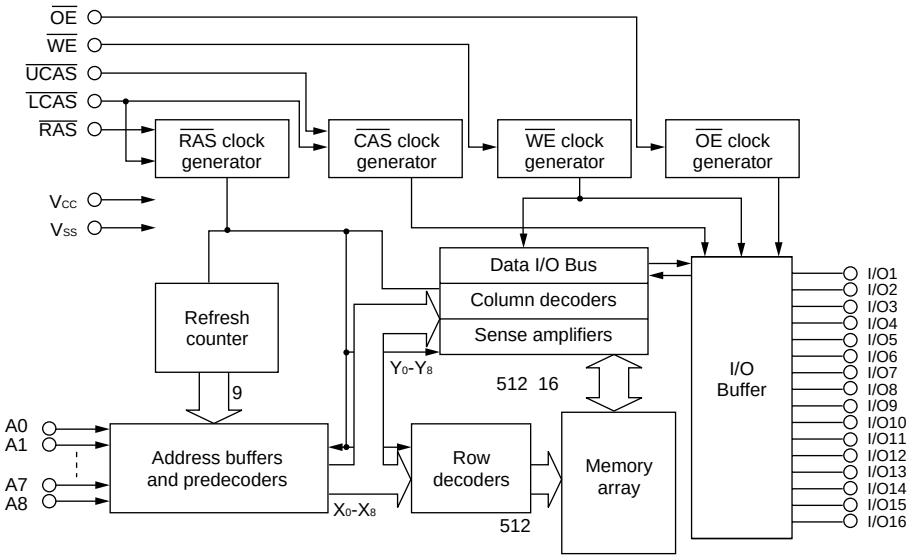
• Block Diagram



11-9. IC702 IX3420CE 4M EDO DRAM

Terminal	Terminal name	Function
16-19, 22-26	A_0-A_8	Address inputs.
14	$\overline{RAS}$	Row address strobe.
28	$\overline{UCAS}$	Column address strobe/upper byte control.
29	$\overline{LCAS}$	Column address strobe/lower byte control.
13	$\overline{WE}$	Write enable.
27	$\overline{OE}$	Output enable.
2-5, 7-10 31-34, 36-39	DQ_1-DQ_{16}	Data inputs/outputs.
1, 6, 20	V_{CC}	+3.3V power supply.
21, 35, 40	V_{SS}	0V ground.
11-12, 15, 30	NC	No connection.

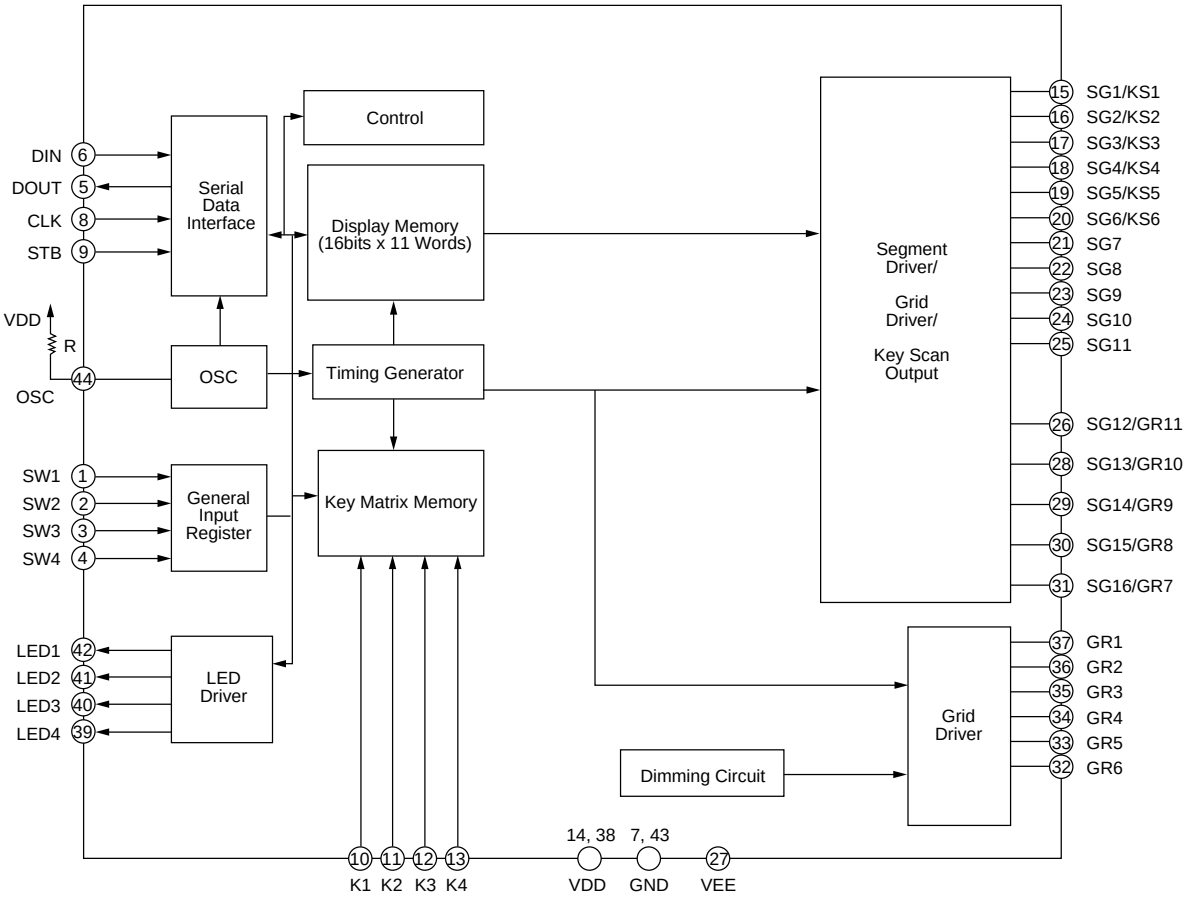
• Block Diagram



11-10. IC5001 PT6312LQ FL DRIVER

Pin No.	Terminal name	I/O	Operation function
1-4	SW1 to SW4	I	General purpose input pins
5	DOUT	O	Data output pin (N-Channel, Open-Drain) This pin outputs serial data at the falling edge of the shift clock (starting from the lower bit).
6	DIN	I	Data input pin This pin inputs serial data at the rising edge of the shift clock (starting from the lower bit)
7, 43	GND	–	Ground pin
8	CLK	I	Clock input pin This pin reads serial data at the rising edge and outputs data at the falling edge.
9	STB	I	Serial interface strobe pin The data input after the STB has fallen is processed as a command. When this pin is "HIGH", CLK is ignored.
10-13	K1 to K4	I	Key data input pins The data inputted to these pins are latched at the end of the display cycle.
14, 38	VDD	–	Logic power supply
15-20	SG1/KS1 to SG6/KS6	O	High-voltage segment output pins also acts as the key source
21-25	SG7 to SG11	O	High voltage segment output pin
26, 28-31	SG12/GR11 SG13/GR10 to SG16/GR7	O	High voltage segment/grid output pins
27	VEE	–	Pull-down level
32-37	GR6 to GR1	O	High-voltage grid output pins
42-39	LED1 to LED4	O	LED output pin
44	OSC	I	Osillator input pin A resistor is connected to this pin to determine the oscillation frequency.

• Block Diagram

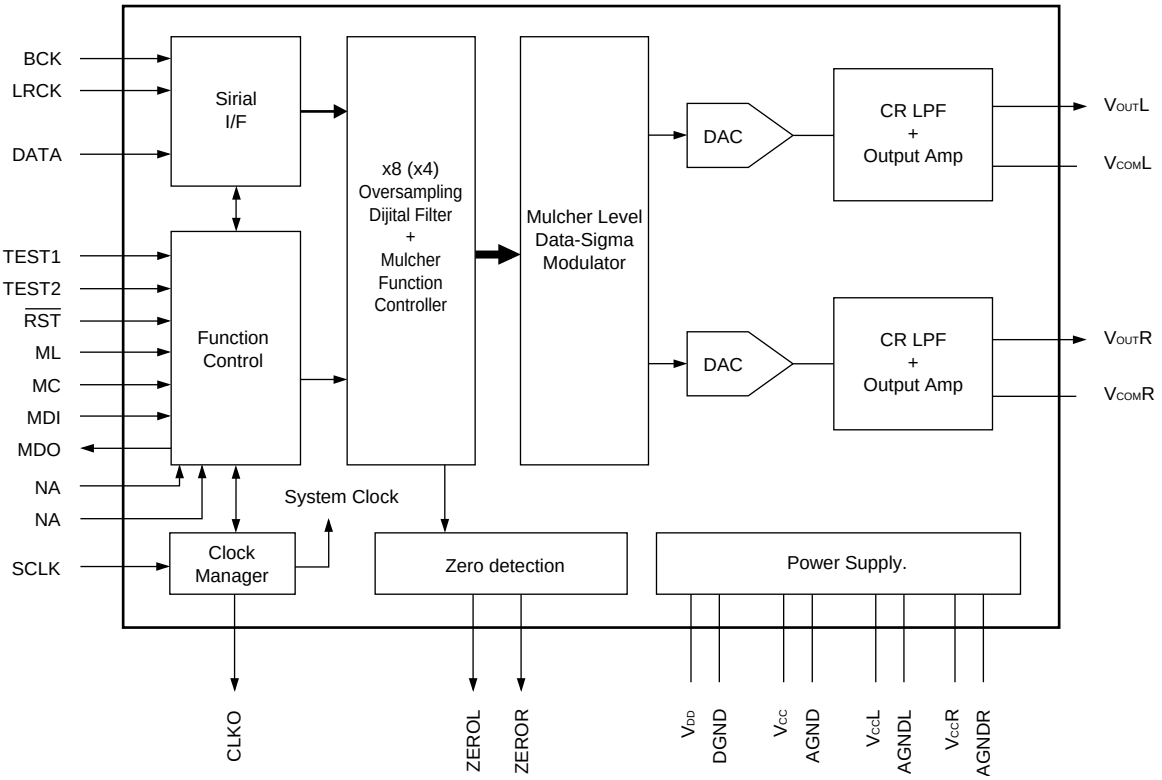


11-11. IC6001 PCM1737 AUDIO DAC

Pin No.	Terminal name	I/O	Operation function
1	LRCK	I	LRCK clock input (fs) (1)
2	DATA	I	Audio • Data input (1)
3	BCK	I	Bit clock input for data. (1)
4	CLKO	O	System clock buffered output.
5	SCLK	I	System clock input.
6	DGND	–	Digital ground.
7	V_{DD}	–	Digital power supply +3.3V
8	TEST1	I	Test pin (2) (Open or ground)
9	TEST2	I	Test pin (2) (Open or ground)
10	V_{CC}R	–	Rch, Analog power supply +5V
11	AGNDR	–	Analog ground, Rch
12	V_{COM}R	–	Rch Analog output amp. • common
13	V_{OUT}R	O	Rch Analog voltage output.
14	AGND	–	Analog • ground
15	V_{CC}	–	Analog power supply +5V
16	V_{OUT}L	O	Lch Analog voltage output
17	V_{COM}L	–	Lch Analog output amp • common
18	AGNDL	–	Analog ground, Lch
19	V_{CC}L	–	Lch, Analog power supply +5V
20	NA	I	Not connected.
21	NA	I	Not connected.
22	$\overline{RST}$	I	Reset
23	ZEROL	O	Lch, Zero data • flug
24	ZEROR	O	Rch, Zero data • flug
25	MDO	O	Mode control, data output (3)
26	MDI	I	Mode control, data input (2)
27	MC	I	Mode clock (2)
28	ML	I	Mode latch (2)

Note: (1) Schmidt trigger input, 5V logic input possible. (2) Schmidt trigger input pull-down resistor. 5V logic input possible. (3) Try state output

• Block Diagram

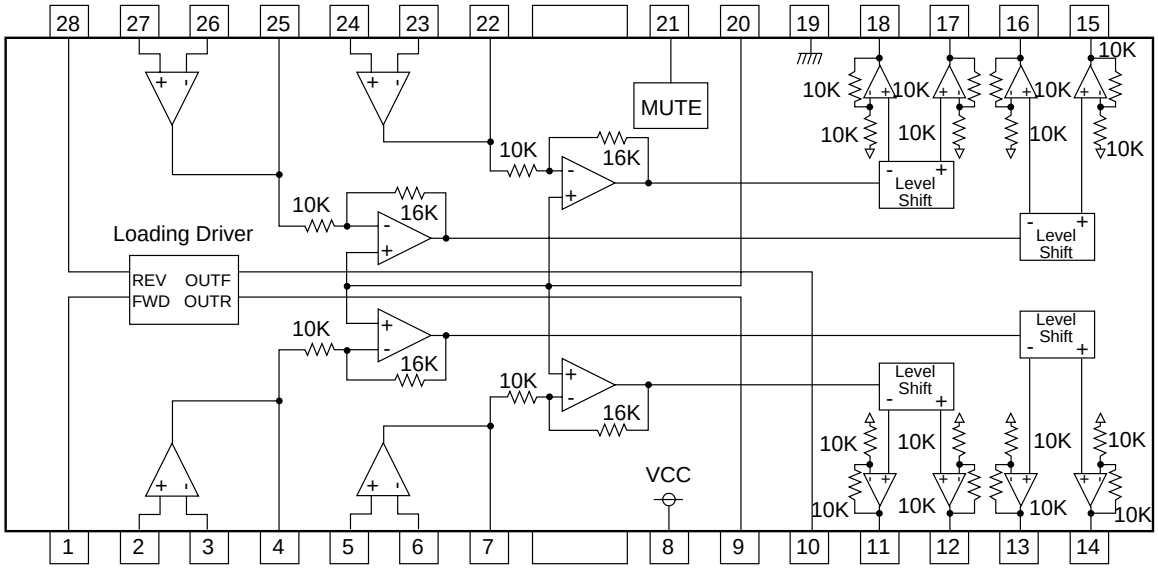


11-12. IC7701 BA5984FP MOTOR DRIVER

Pin No.	Terminal name	Operation function	Pin No.	Terminal name	Operation function
1	LD-FWD	Loading driver FWD input terminal	15	V04(+)	Driver CH4 Negative output
2	SL_IN(+)	CH1 Former stage amplifier nonreverse input terminal	16	V04(-)	Driver CH4 Positive output
3	SL_IN(-)	CH1 Former stage amplifier reverse input terminal	17	V03(+)	Driver CH3 Negative output
4	SLOUT	CH1 Former stage amplifier output terminal	18	V03(-)	Driver CH3 Positive output
5	SP_IN(+)	CH2 Former stage amplifier nonreverse input terminal	19	GND	Ground terminal
6	SP_IN(-)	CH2 Former stage amplifier reverse input terminal	20	BIAS	Bias input terminal
7	SP_OUT	CH2 Former stage amplifier output terminal	21	MUTE	Mute control terminal
8	VCC	Power terminal	22	FO_OUT	CH3 Former stage amplifier output terminal
9	LD(-)	Loading driver Negative output	23	FO_IN(-)	CH3 Former stage amplifier reverse input terminal
10	LD(+)	Loading driver Positive output	24	FO_IN(+)	CH3 Former stage amplifier nonreverse input terminal
11	SPIN(-)	Driver CH2 Negative output	25	TR_OUT	CH4 Former stage amplifier output terminal
12	SPIN(+)	Driver CH2 Positive output	26	TR_IN(-)	CH4 Former stage amplifier reverse input terminal
13	SL(-)	Driver CH1 Negative output	27	TR_IN(+)	CH4 Former stage amplifier nonreverse input terminal
14	SL(+)	Driver CH1 Positive output	28	REV	Loading driver REV input terminal

Note 1: Positive and negative output the driver have polarity with respect to input. (An example: 4 pin terminal voltage 'HIGH': 14 pin terminal voltage 'HIGH')

• Block Diagram

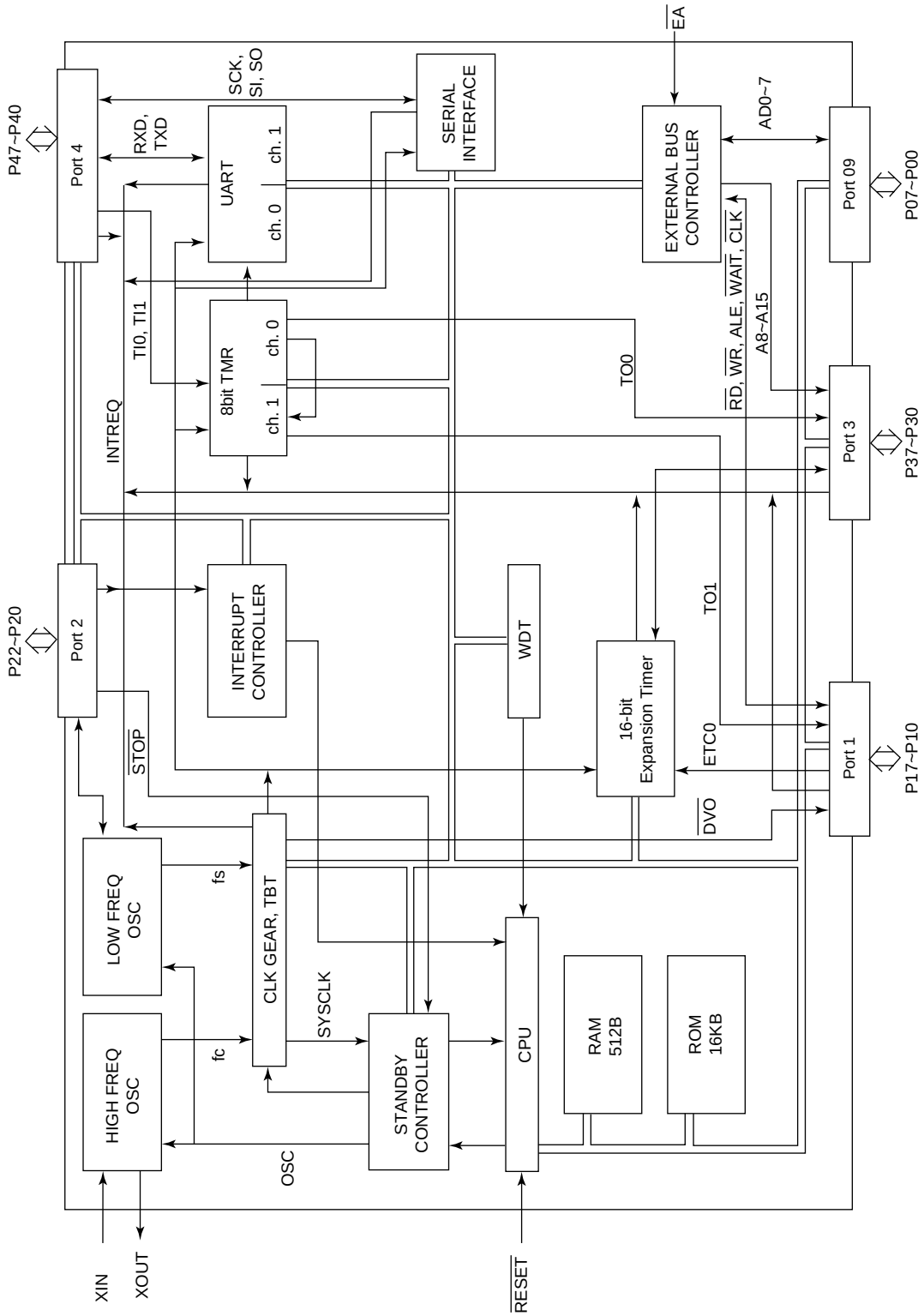


11-13. IC8201 IX1757GE INTERFACE MICOM.

• Terminal description

Pin No.	Terminal Name	In/Output	Operation function
1	TRAY ACK(L)	Input	Input terminal of [TRAY ACK] from DVD microcomputer
2	DVD LED(L)	Output	DVD LED control terminal It outputs [L] and is lit during DVD output.
3	DUB LED(L)	Output	VTR ← DVD LED control terminal It outputs [L] and is lit in VTR ← DVD mode.
4	STANDBY LED(L)	Output	Stand-by LED control terminal It outputs [L] and is lit during stand-by.
5	TEST	Input	IC test terminal. Fixed to GND.
6	XIN	Input	Radiator connection terminal
7	VSS	–	Digital GND
8	XOUT	Output	Radiator connection terminal
9	VDD	–	Power AT_5V
10	R/C	Input	Remote control signal input
11	RESET	Input	Microcomputer reset signal input
12	NC	–	Unconnected
13	POWER KEY	Input	POWER key input: [L] input while key is ON.
14	OPEN/CLOSE KEY	Input	OPEN/CLOSE key input: [L] input while key is ON.
15	EA	Input	Terminal for IC only. Fixed to power supply.
16	POWER OFF	Output	VTR POWER OFF key control terminal It outputs [H] when the power is OFF.
17	POWER ON	Output	VTR POWER ON key control terminal It outputs [H] when the power is ON.
18	TIMER MODE	Input	VTR TIMER mode detection terminal When [H] is output, the VTR power ON/OFF is not controlled.
19	POWER MODE	Input	VTR POWER mode detection terminal When [TIMER MODE] = [L], DVD is turned ON when the [POWER MODE] is activated and turned OFF when it is deactivated.
20	REC MODE	Input	VTR REC mode detection terminal [VTR ← DVD] key is disabled at [H] input.
21~31	NC	–	No used
32	P-CON(L)	Output	DVD P-CON control terminal
33	SHORT DET(L)	Input	Short circuit detection terminal for DVD P-CON power supply After [L] is input for 0.5 seconds, P-CON is switched to OFF.
34	NC	–	Unconnected
35	A_OUT_MUTE(L)	Output	Sound output mute control terminal for VTR/DVD common terminal
36	DVD(H)	Output	Output switching control terminal for VTR/DVD common terminal
37	DUB(H)	Output	Input switching control terminal for VTR input 1
38~40	NC	–	No used
41	PLAY MODE(L)	Input	DVD PLAY mode detection terminal When [TIMER MODE] = [H] and [PLAY MODE] = [L], DVD is not turned OFF even if the [POWER MODE] is deactivated.
42	STANDBY REQUEST(L)	Output	Control terminal for POWER OFF request to DVD microcomputer It keeps outputting the request until [STANDBY ACK] = [L] is input.
43	TRAY REQUEST(L)	Output	Control terminal for TRAY operation request to DVD microcomputer It keeps outputting the request until [TRAY ACK] = [L] is input.
44	STANDBY ACK(L)	Input	Input terminal for [STANDBY ACK] from DVD microcomputer

• **Block Diagram**

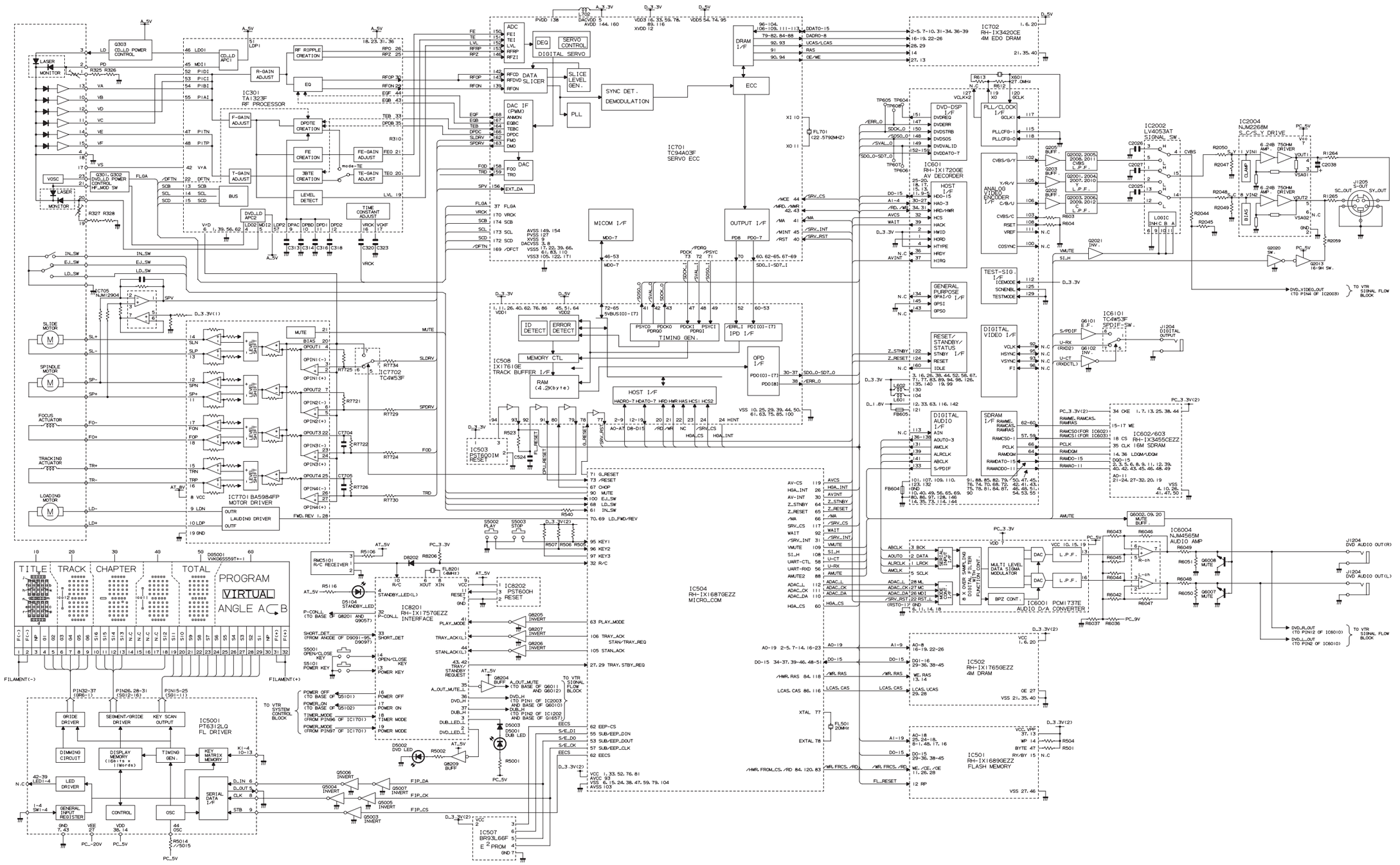


- M E M O -

DV-NC55U/C/M

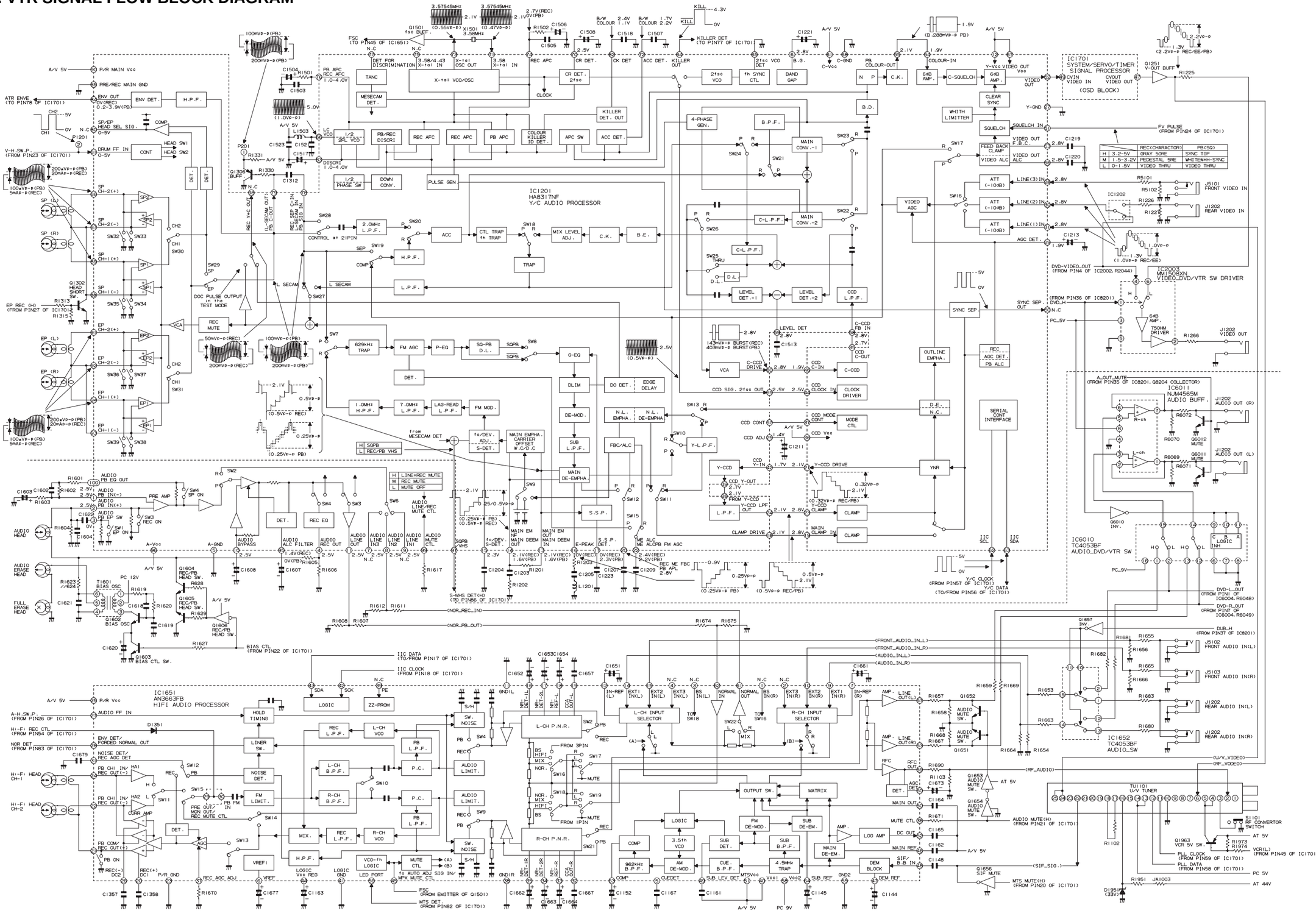
12. BLOCK DIAGRAMS

12-1. MAIN BLOCK DIAGRAM



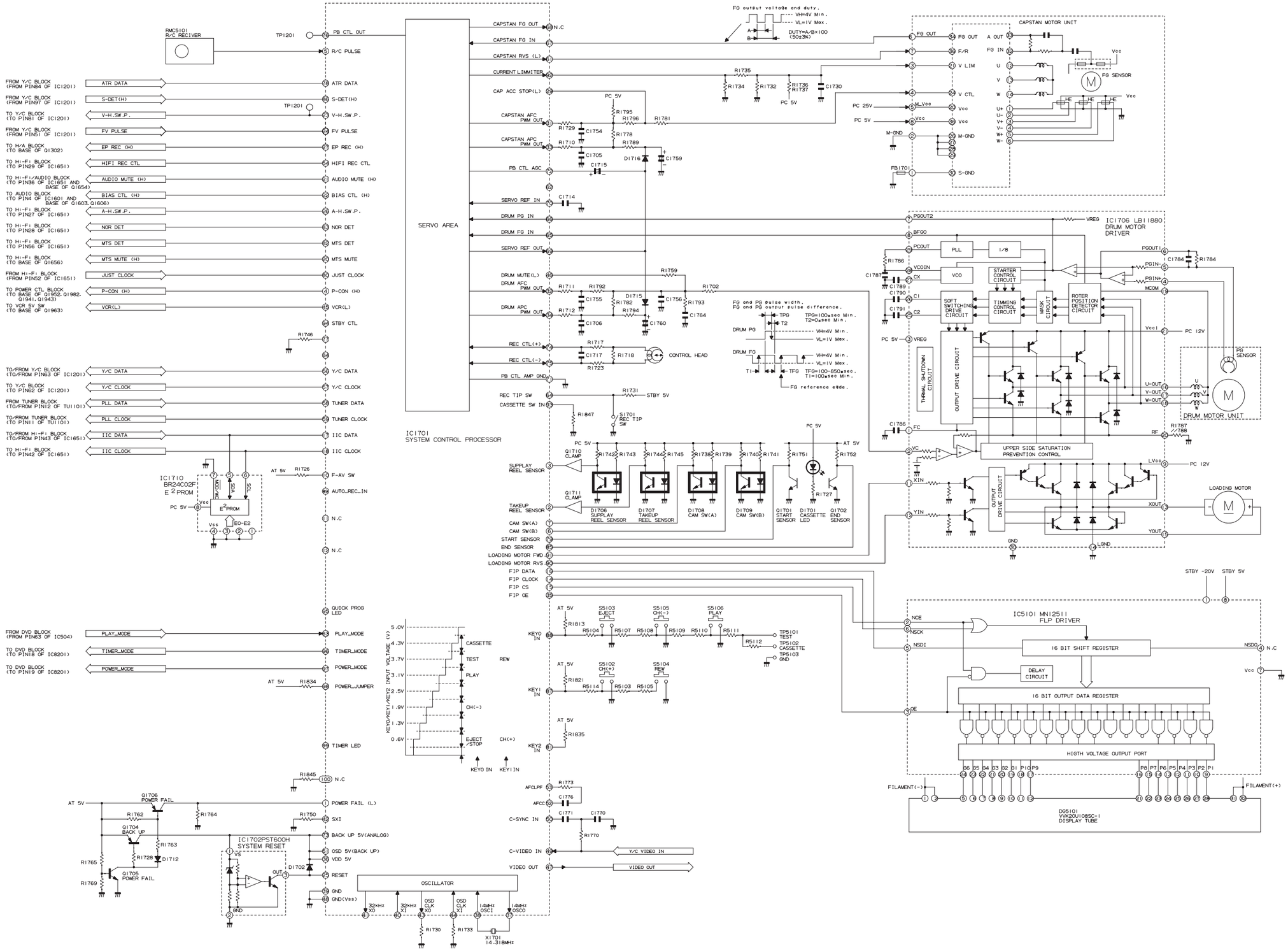
DV-NC55U/C/M

12-2. VTR SIGNAL FLOW BLOCK DIAGRAM



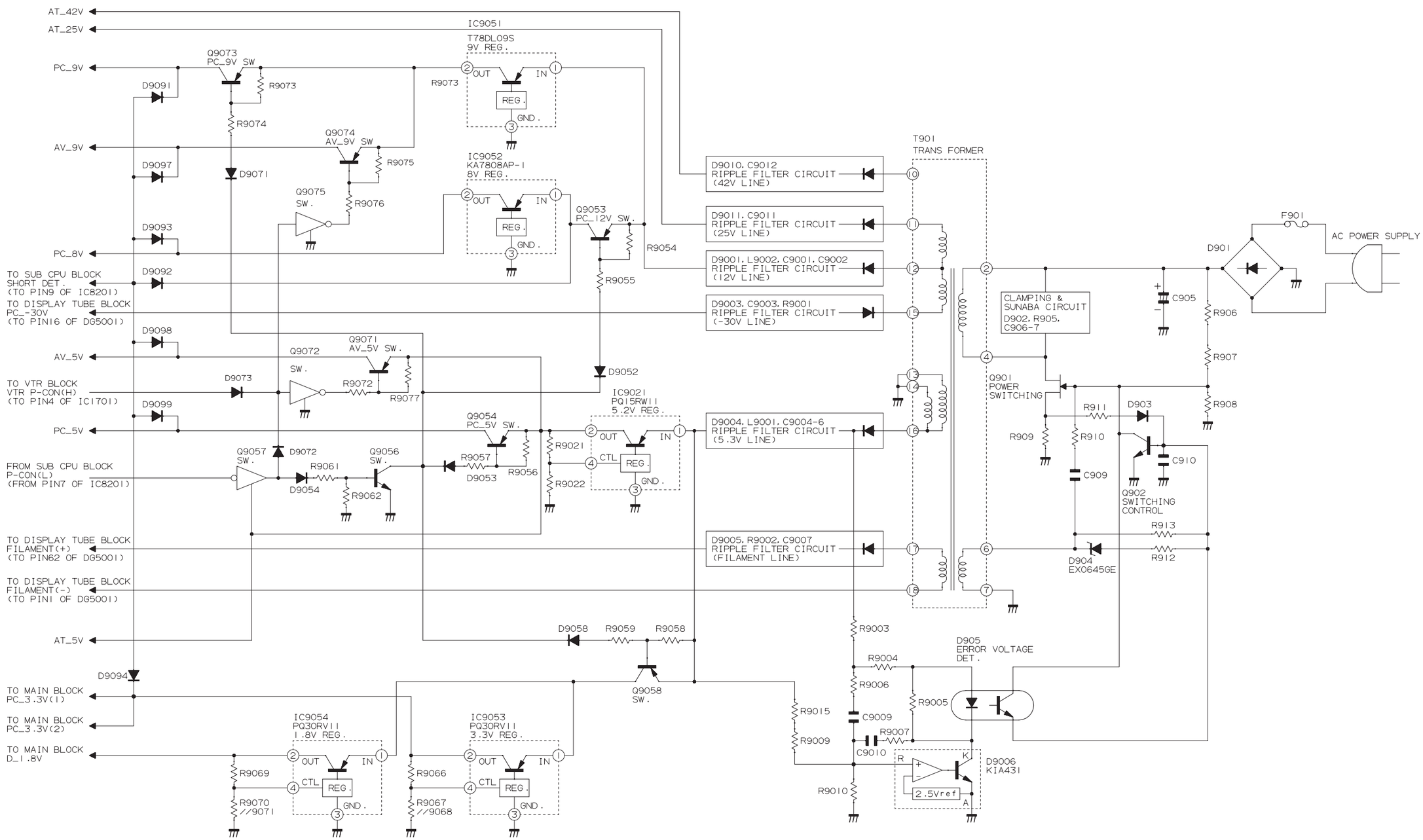
DV-NC55U/C/M

12-3. VTR SERVO BLOCK DIAGRAM



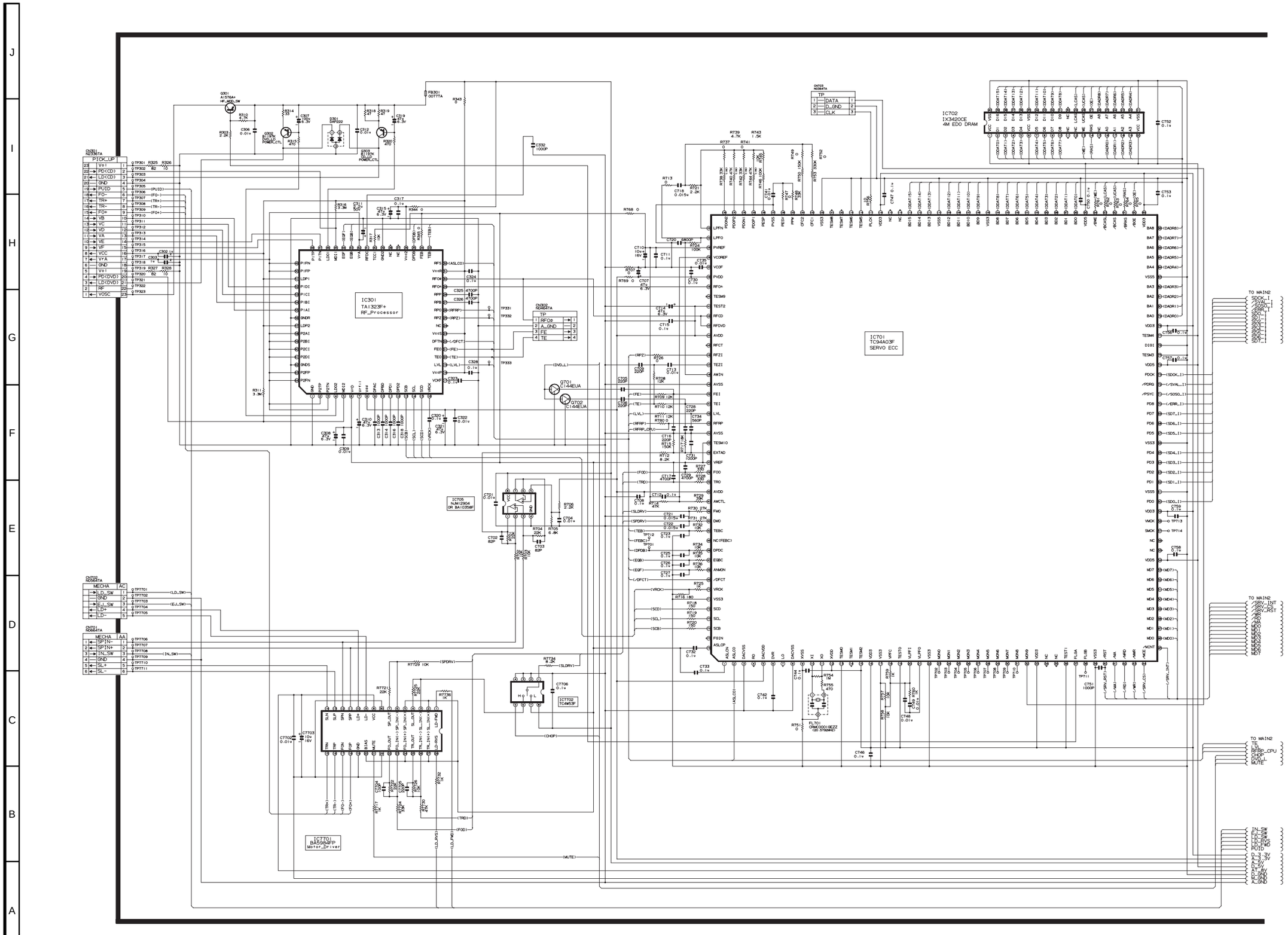
DV-NC55U/C/M

12-4. POWER BLOCK DIAGRAM



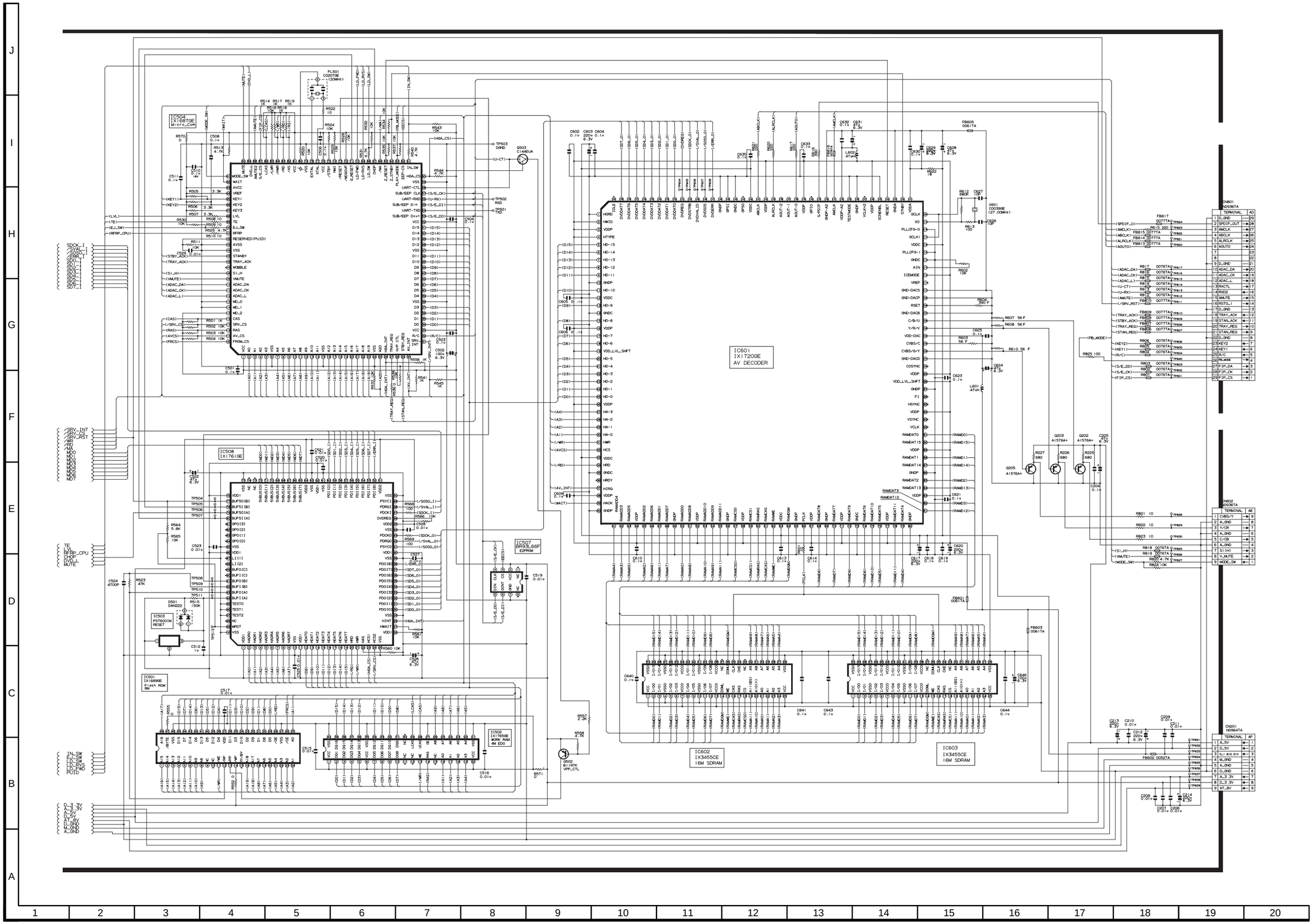
DV-NC55U/C/M

13. SCHEMATIC DIAGRAMS 13-1. DVD MAIN (1) CIRCUIT SCHEMATIC DIAGRAM

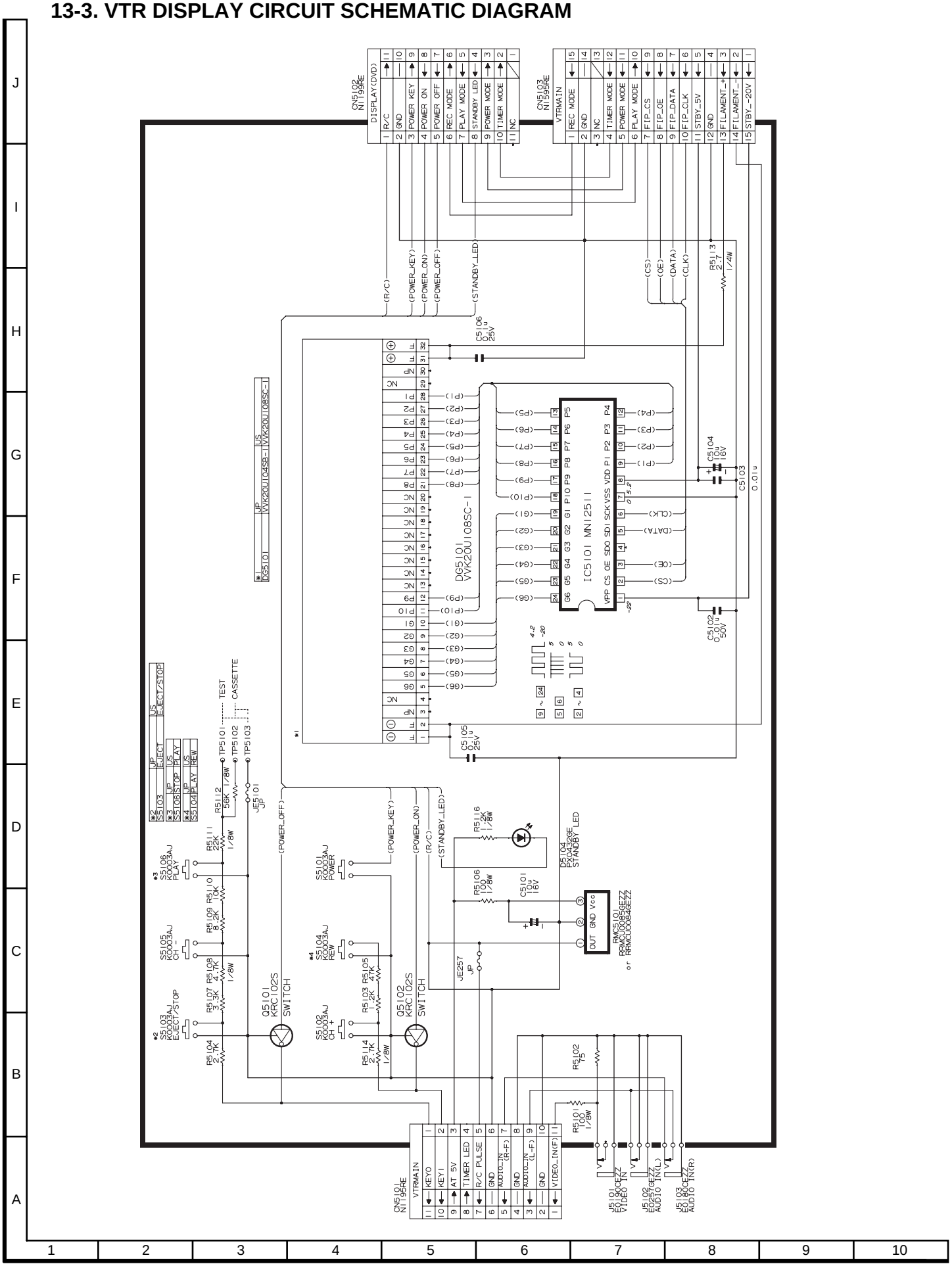


DV-NC55U/C/M

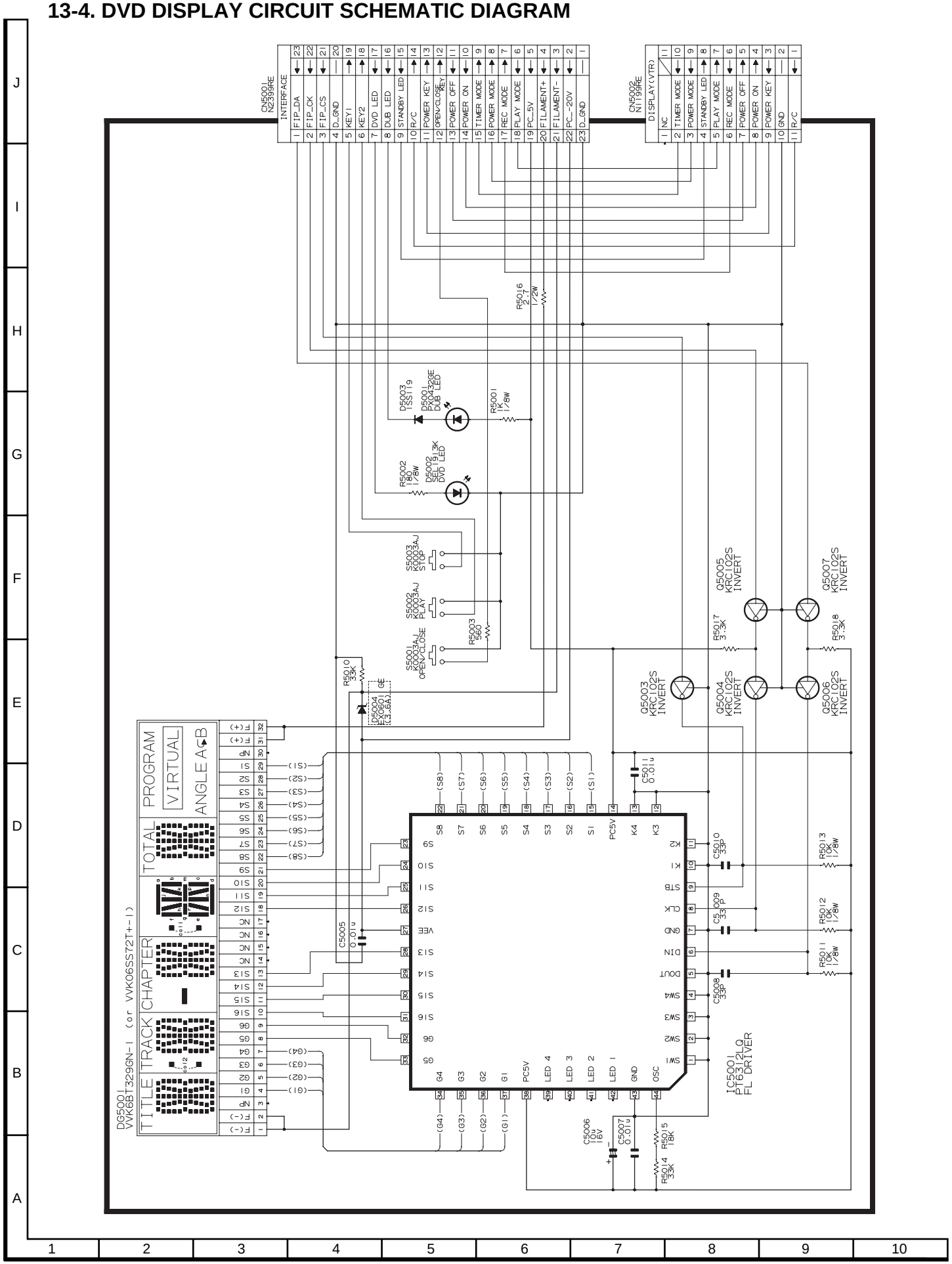
13-2. DVD MAIN (2) CIRCUIT SCHEMATIC DIAGRAM



13-3. VTR DISPLAY CIRCUIT SCHEMATIC DIAGRAM

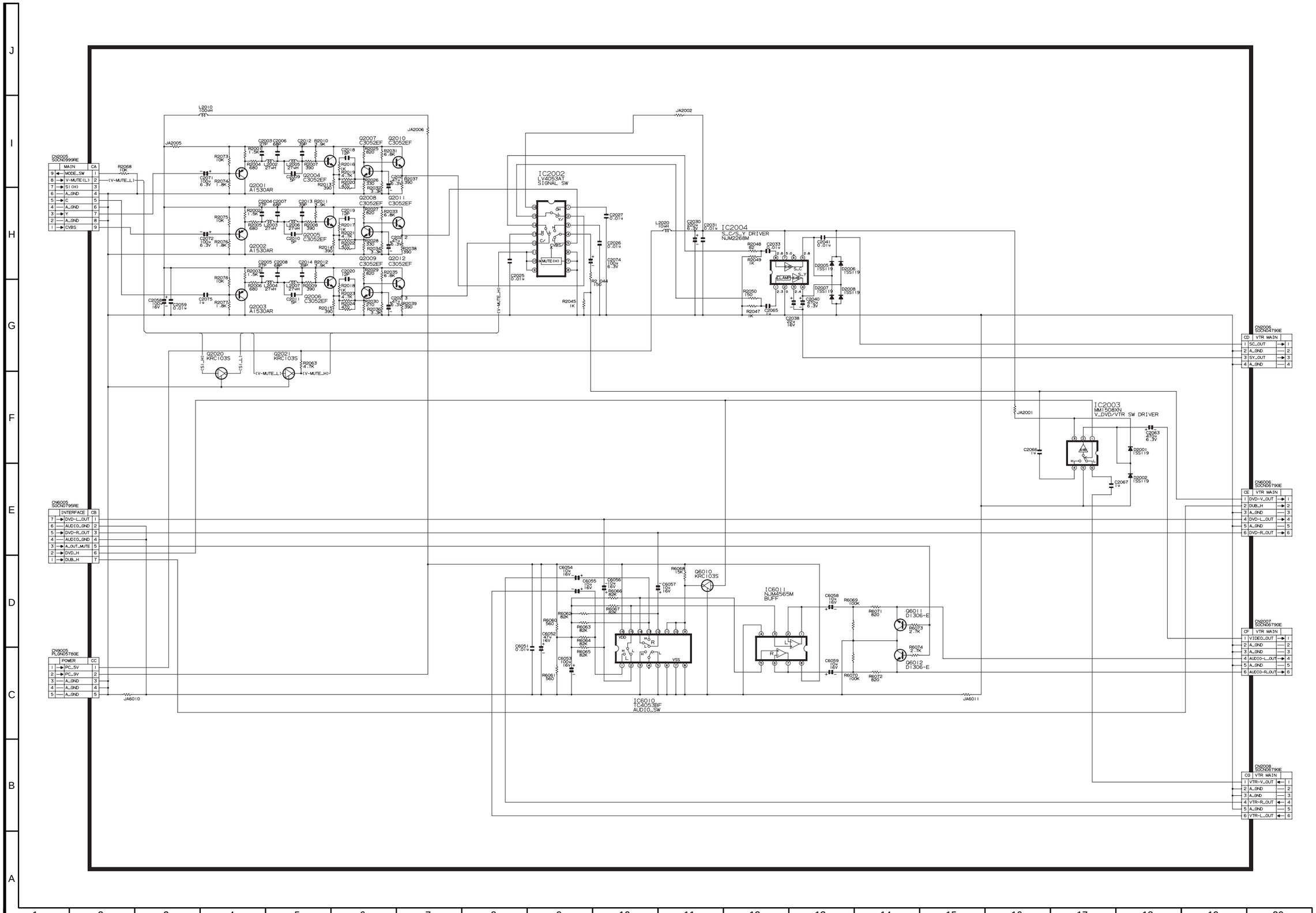


13-4. DVD DISPLAY CIRCUIT SCHEMATIC DIAGRAM



DV-NC55U/C/M

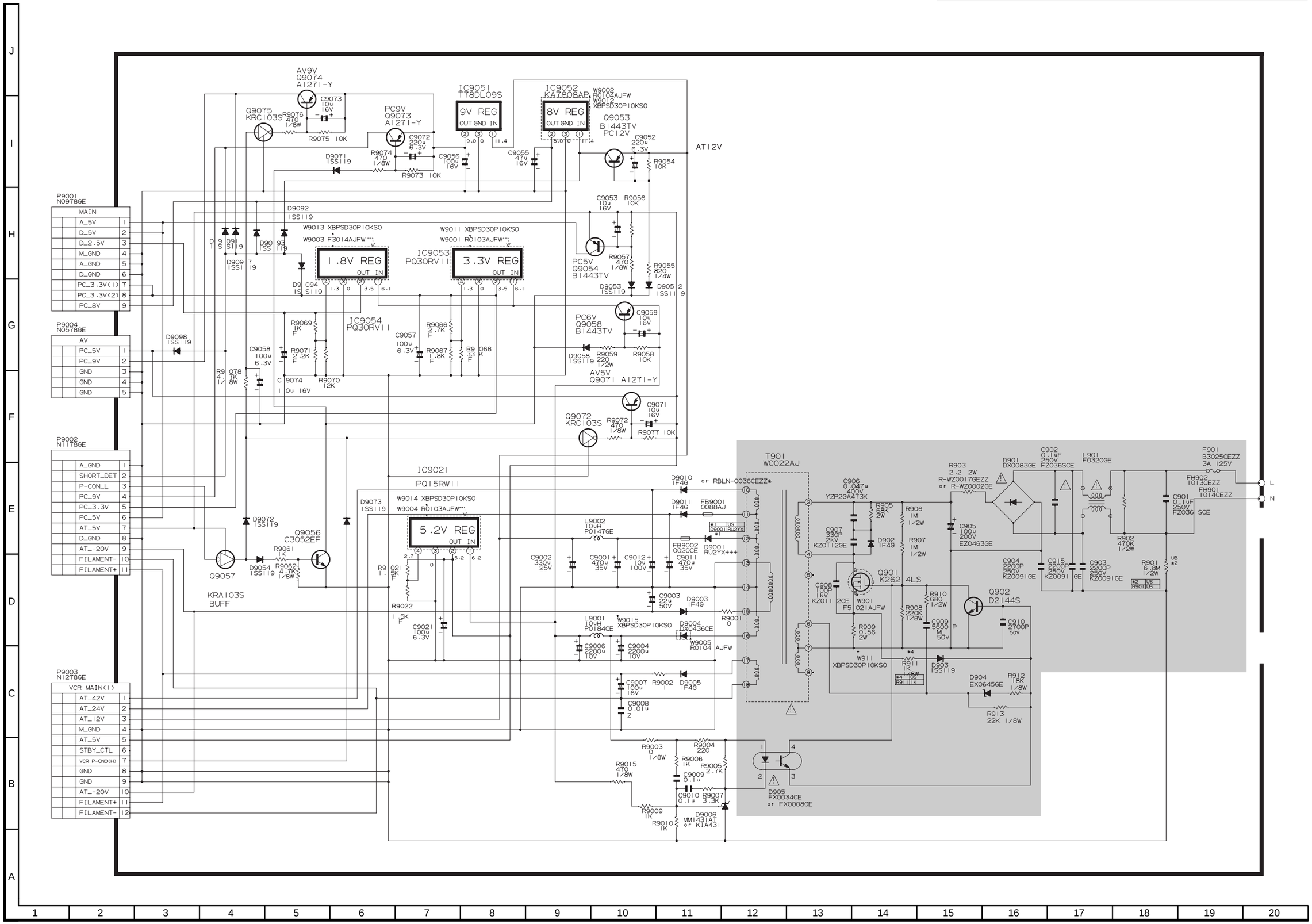
13-5. AUDIO/VIDEO CIRCUIT SCHEMATIC DIAGRAM



DV-NC55U/C/M

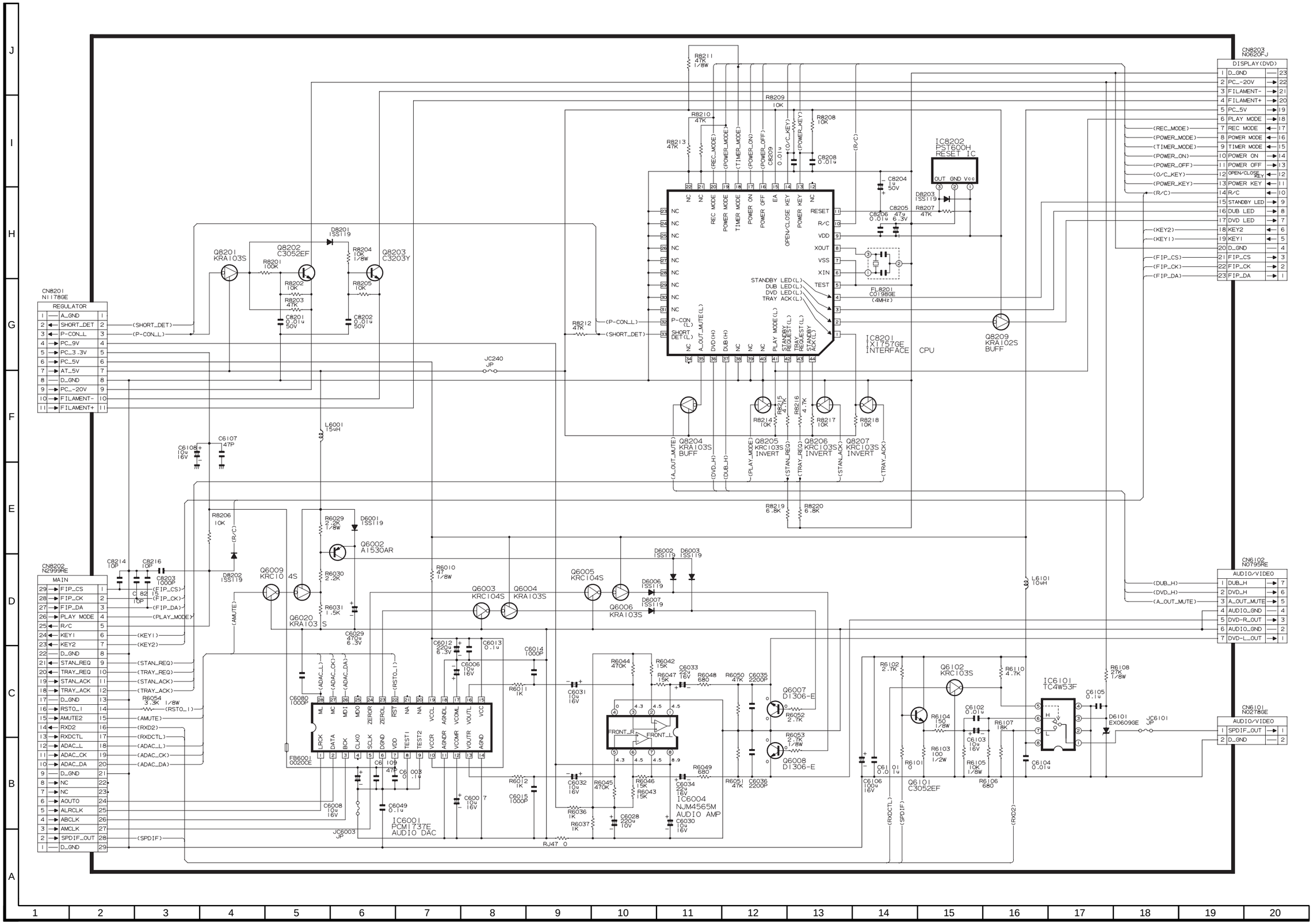
13-6. POWER CIRCUIT SCHEMATIC DIAGRAM

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



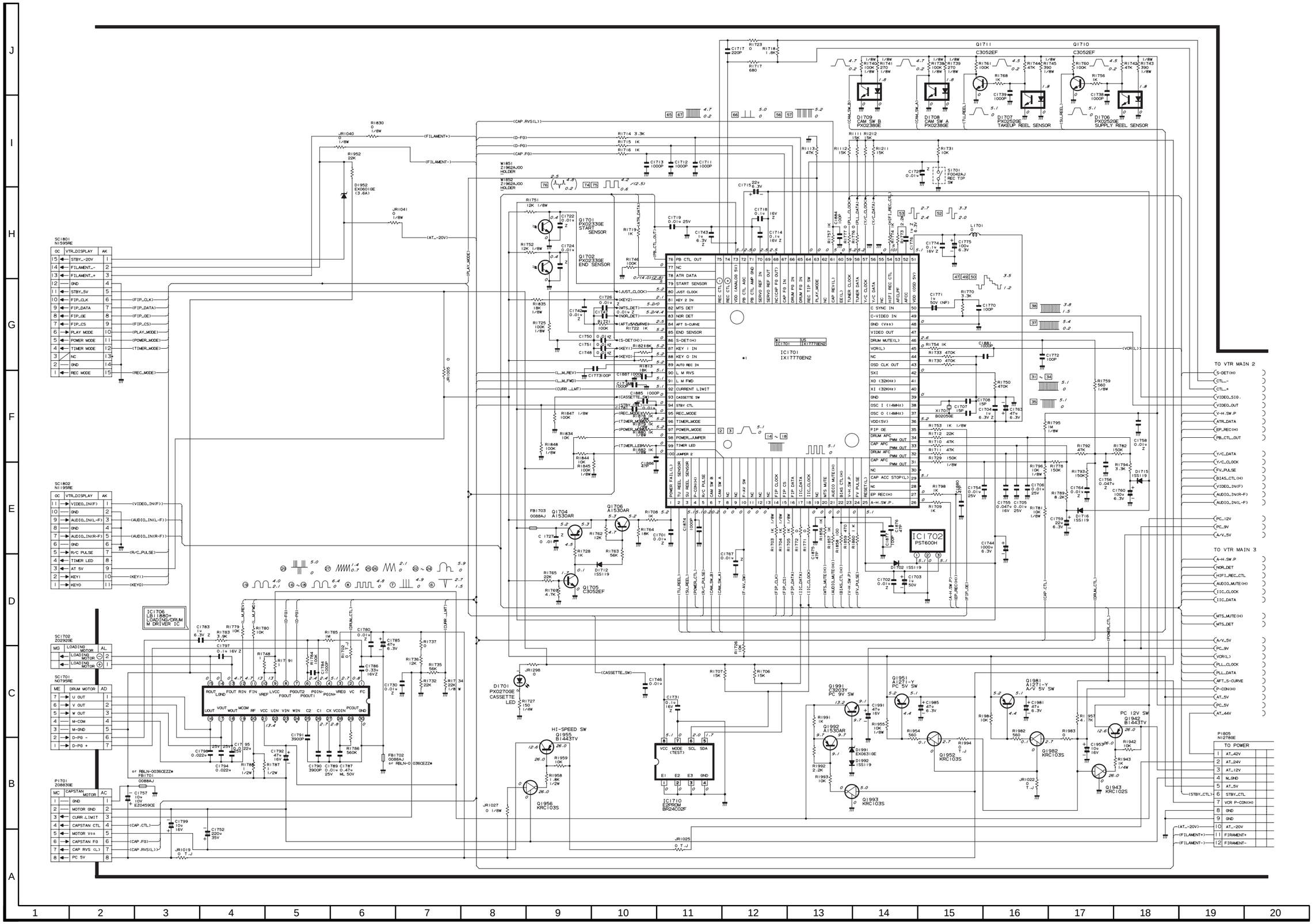
DV-NC55U/C/M

13-7. INTERFACE CIRCUIT SCHEMATIC DIAGRAM



DV-NC55U/C/M

13-8. VTR MAIN (1) CIRCUIT SCHEMATIC DIAGRAM



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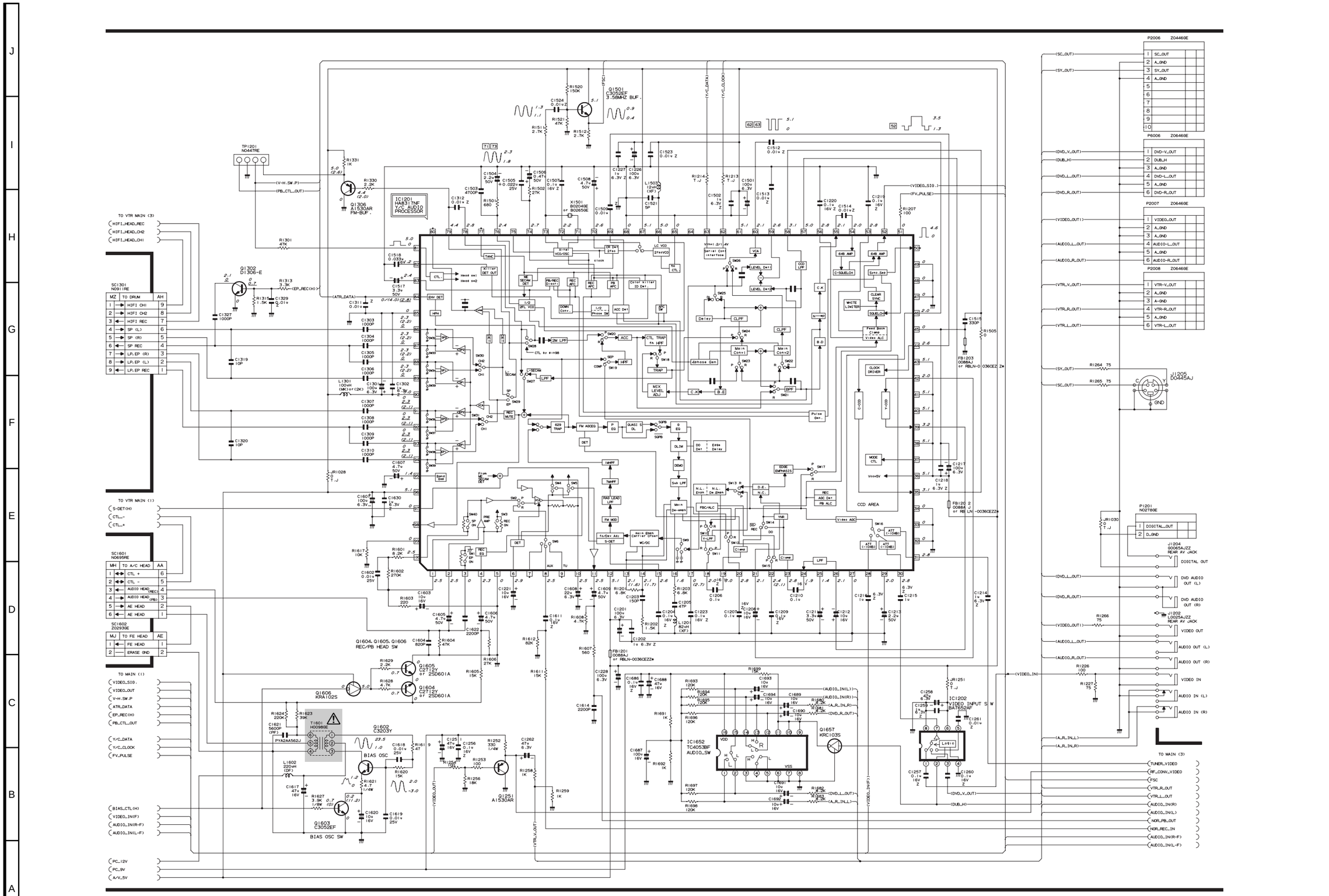
13-9. VTR MAIN (2) CIRCUIT SCHEMATIC DIAGRAM

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



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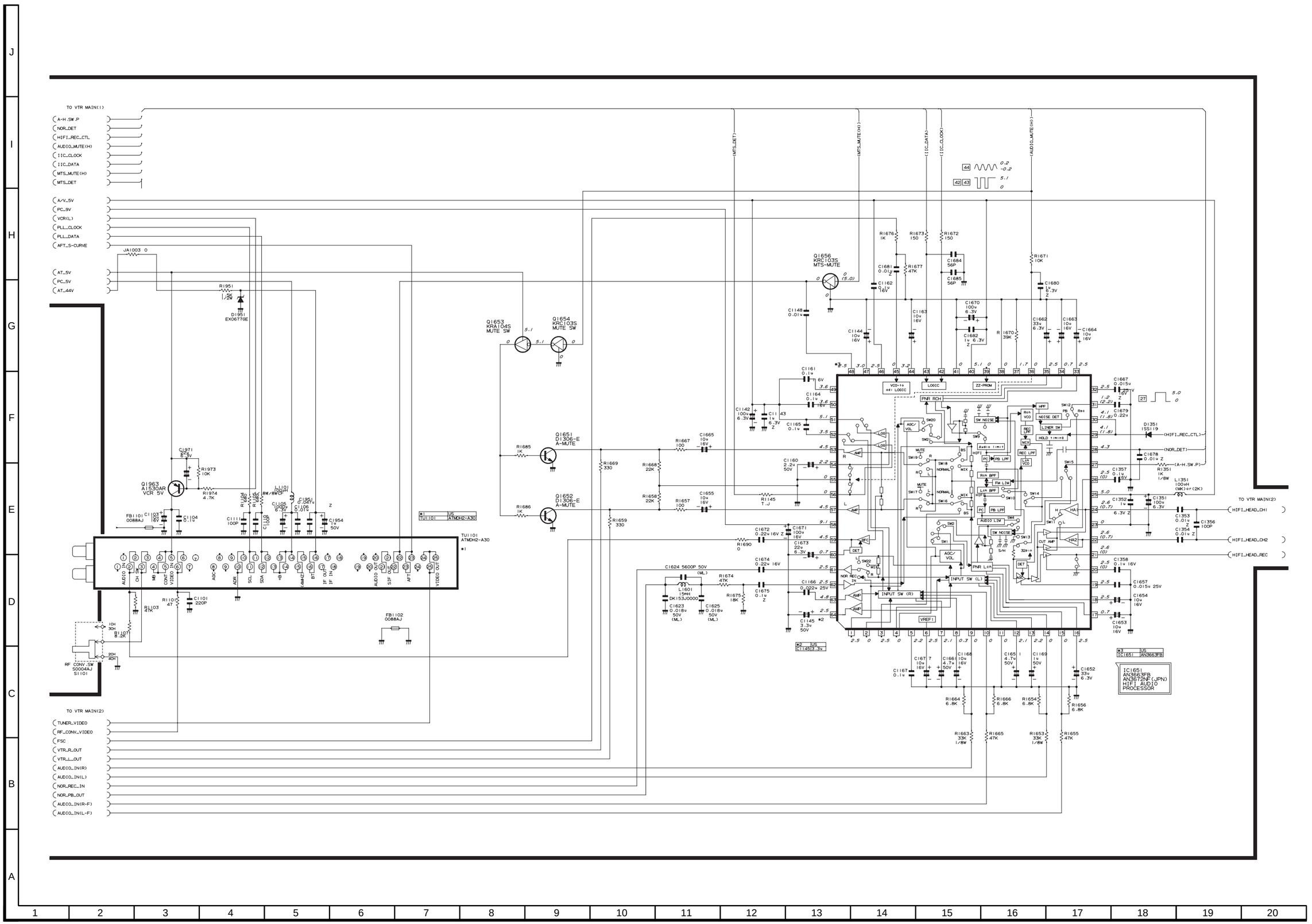
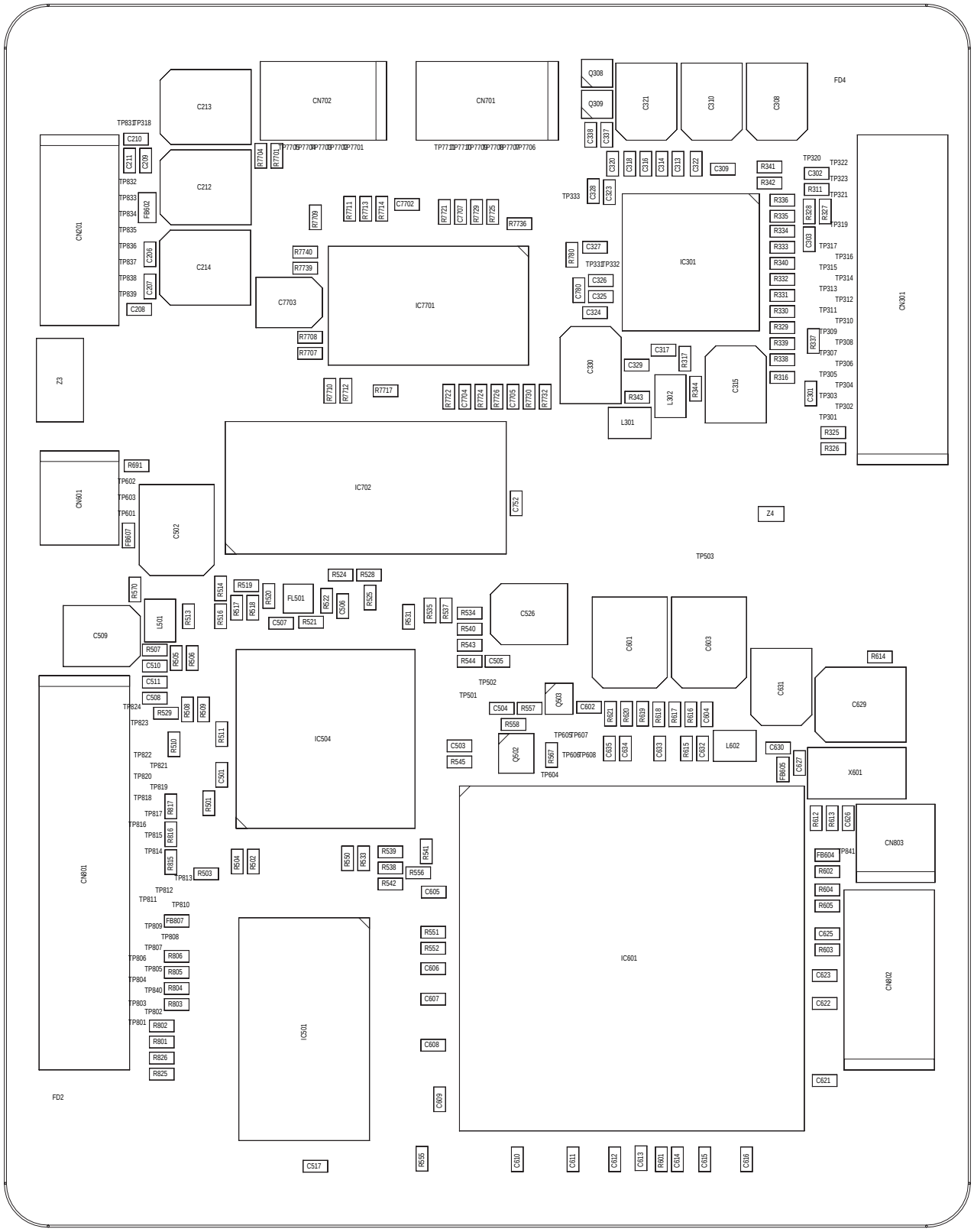
13-10. VTR MAIN (3) CIRCUIT SCHEMATIC DIAGRAM



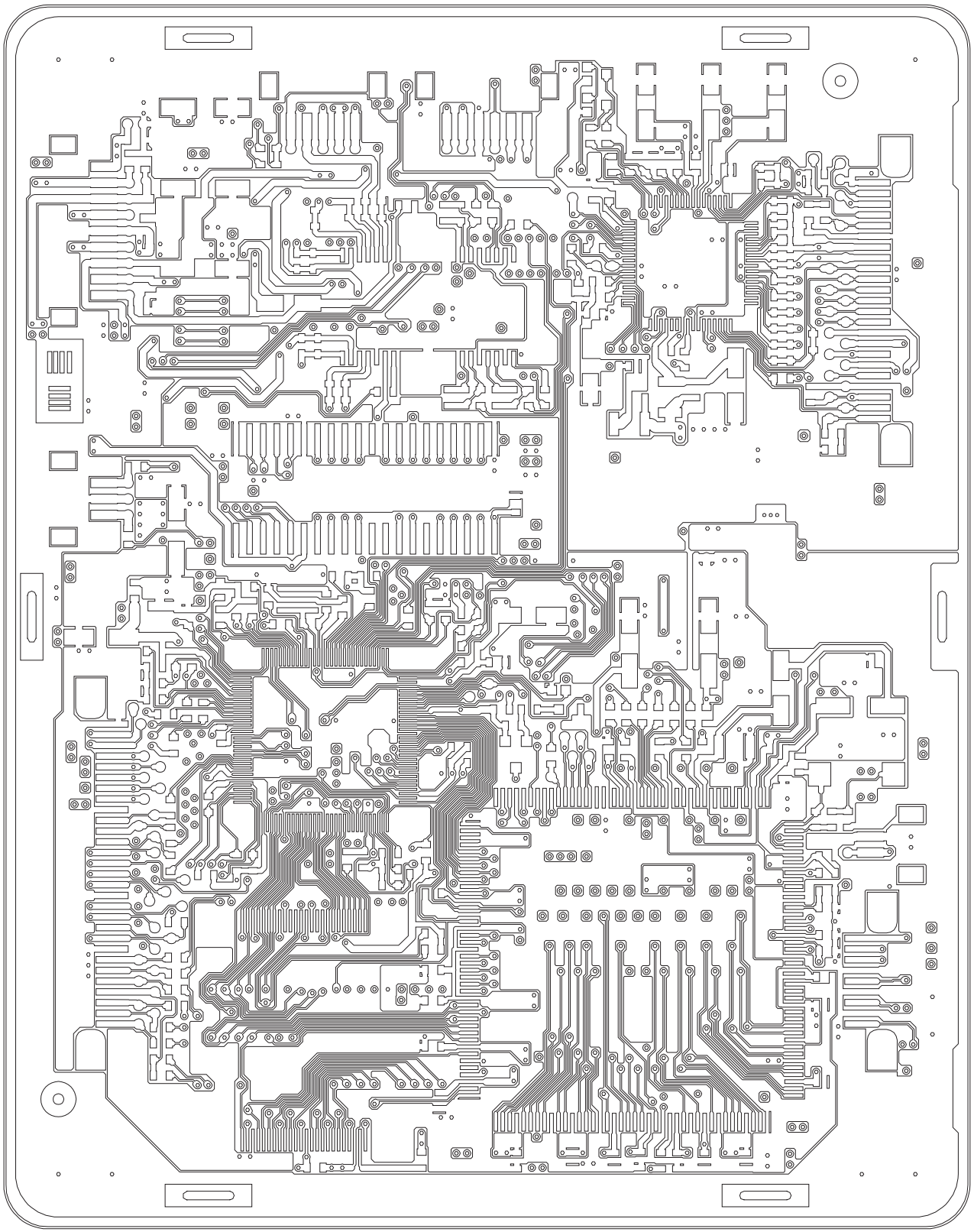
14. PRINTED WIRING BOARD ASSEMBLIES

DVD MAIN PWB

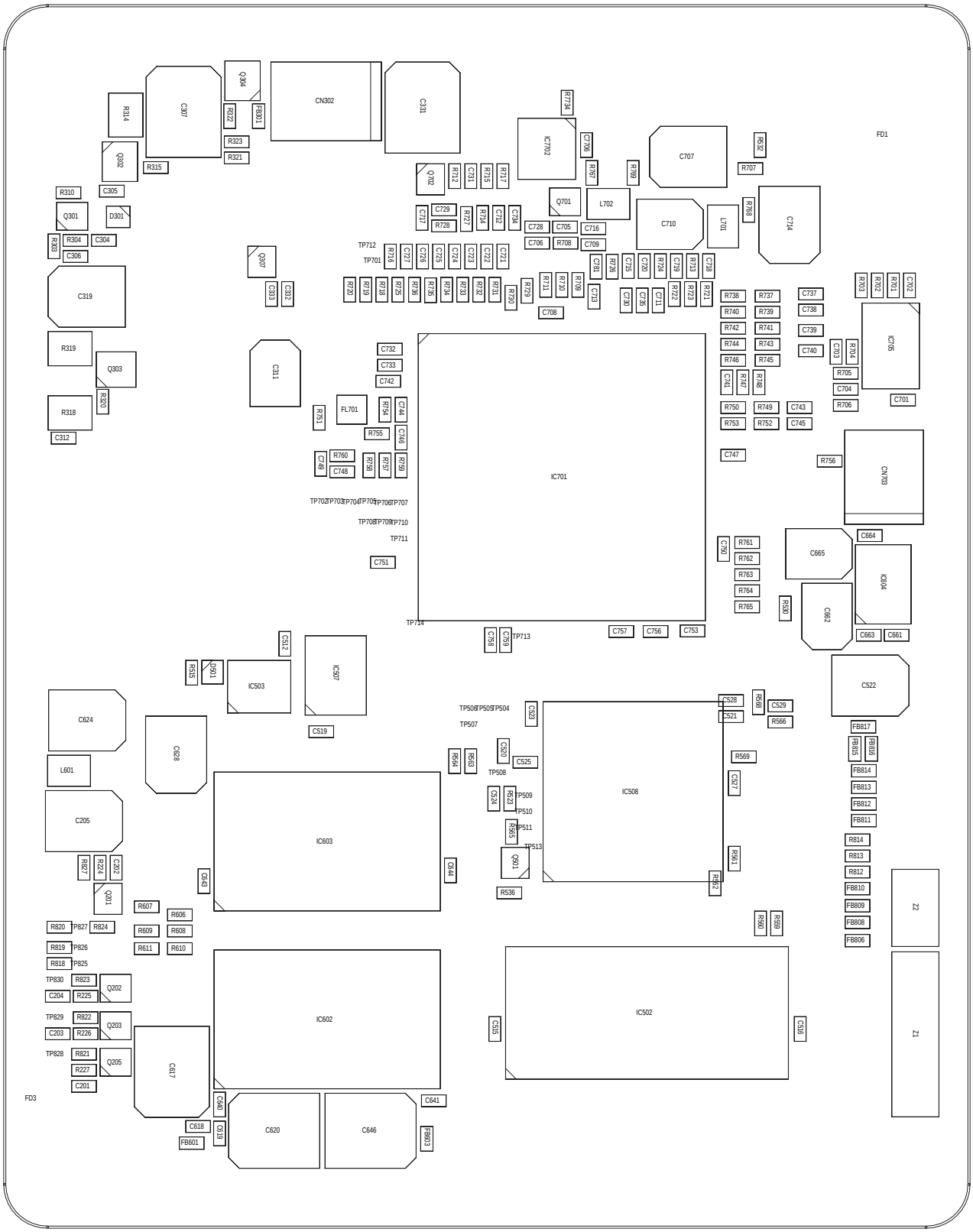
Component Side SIDE A



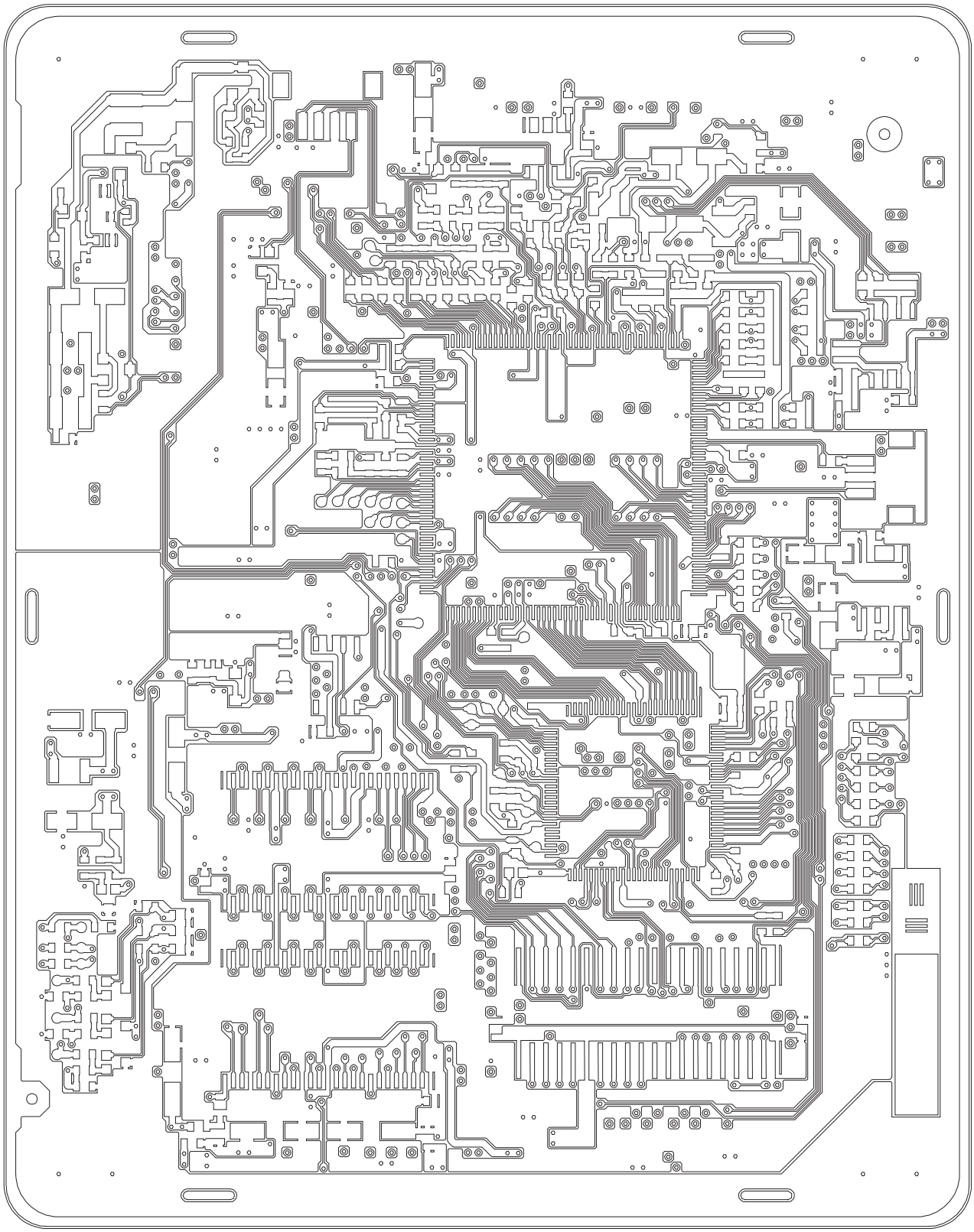
Wiring Side SIDE A



Component Side SIDE B

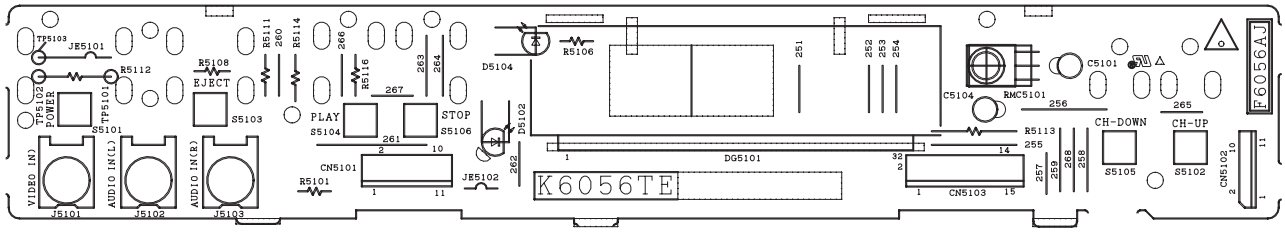


Wiring Side SIDE B

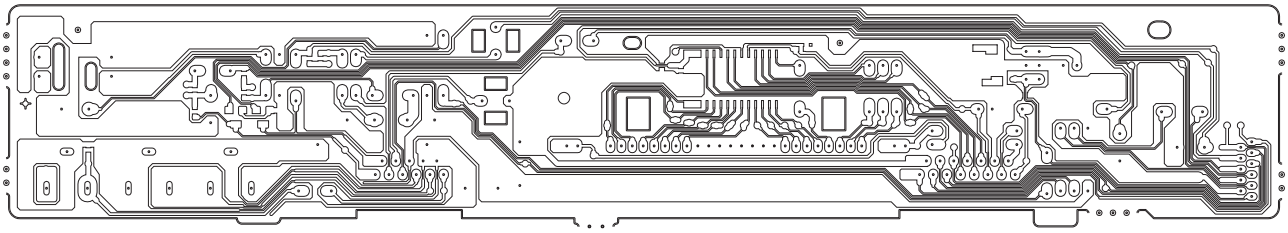


VTR DISPLAY PWB

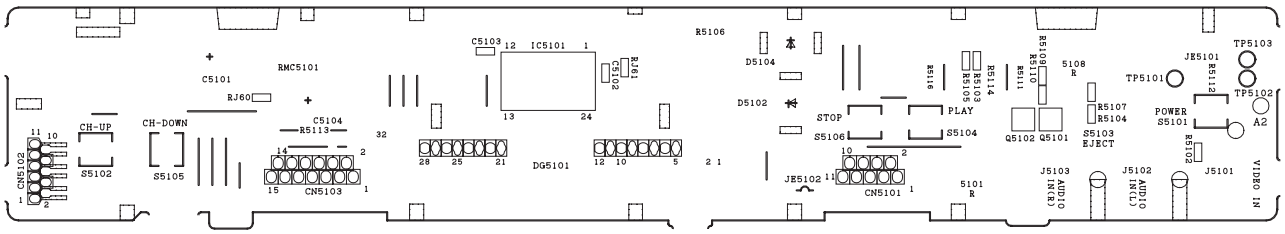
Component Side SIDE A



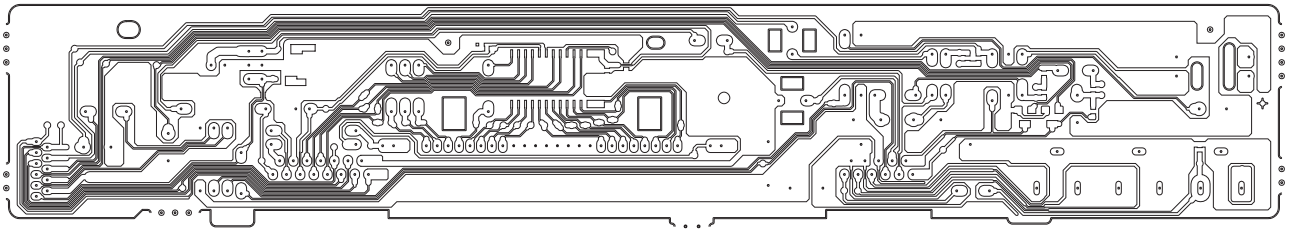
Wiring Side SIDE A



Component Side SIDE B

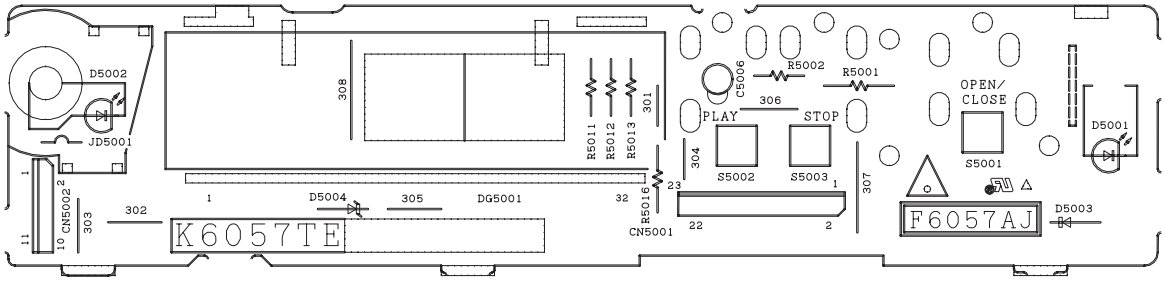


Wiring Side SIDE B

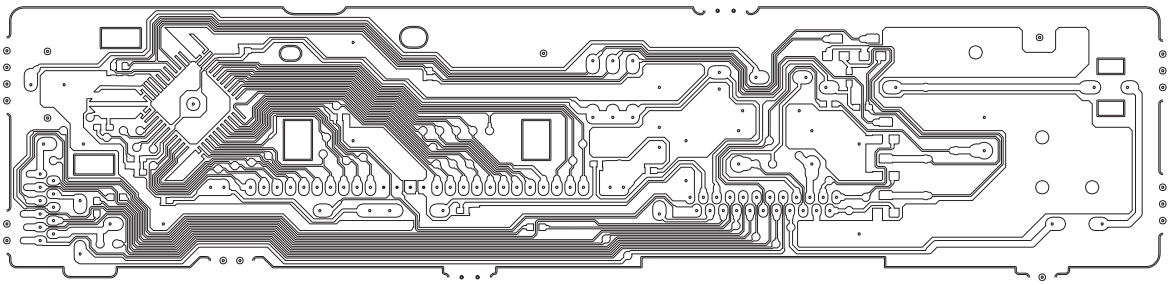


DVD DISPLAY PWB

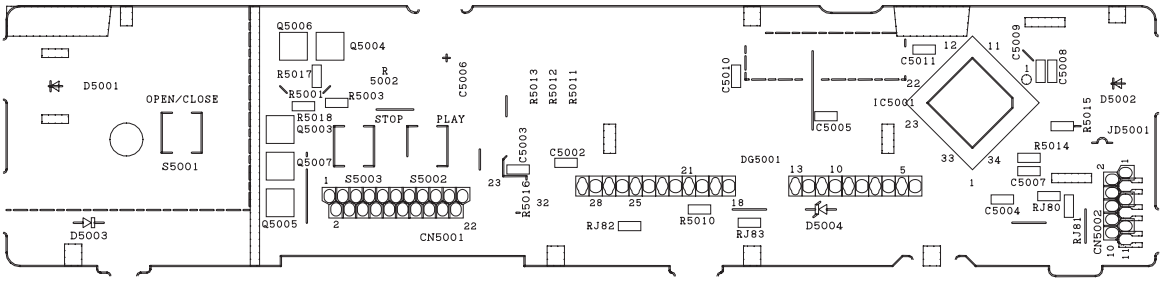
Component Side SIDE A



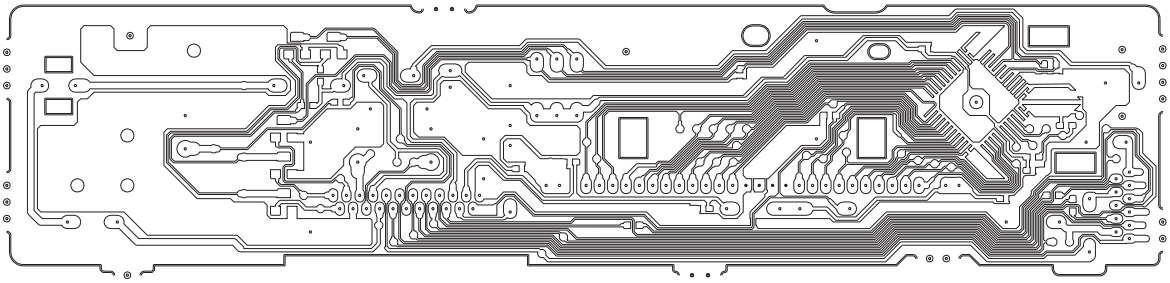
Wiring Side SIDE A



Component Side SIDE B

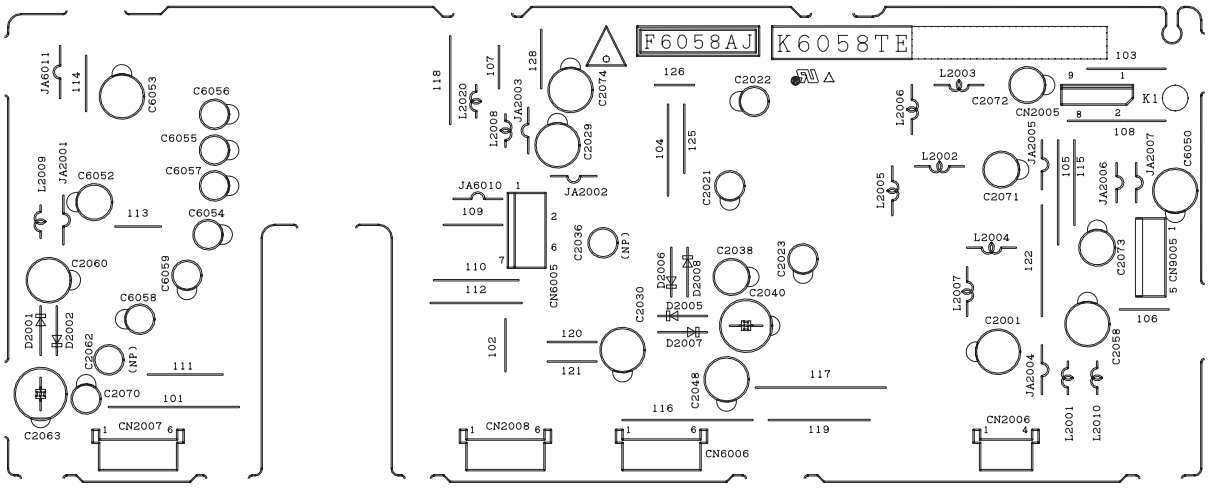


Wiring Side SIDE B

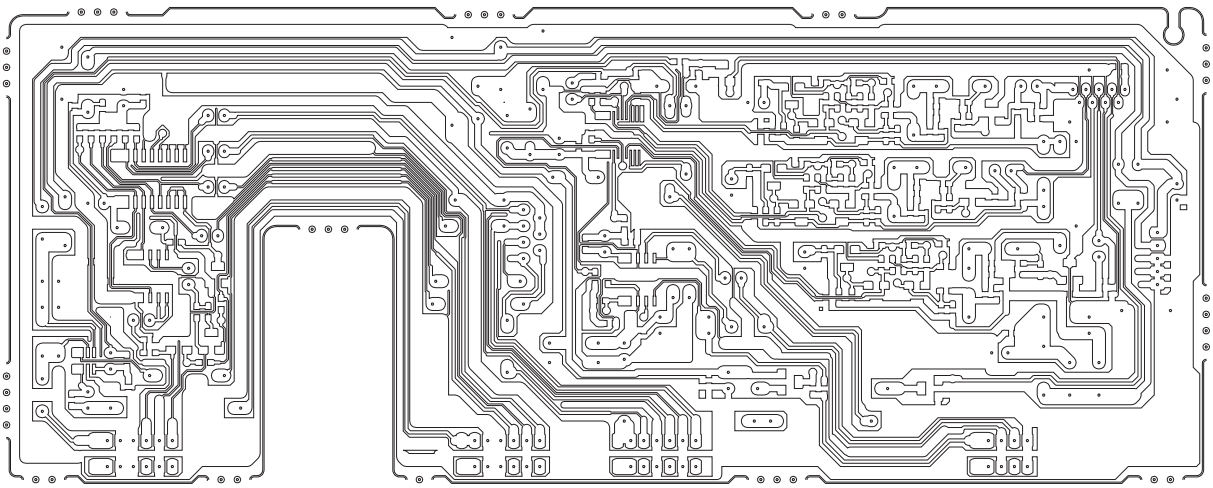


AUDIO/VIDEO PWB

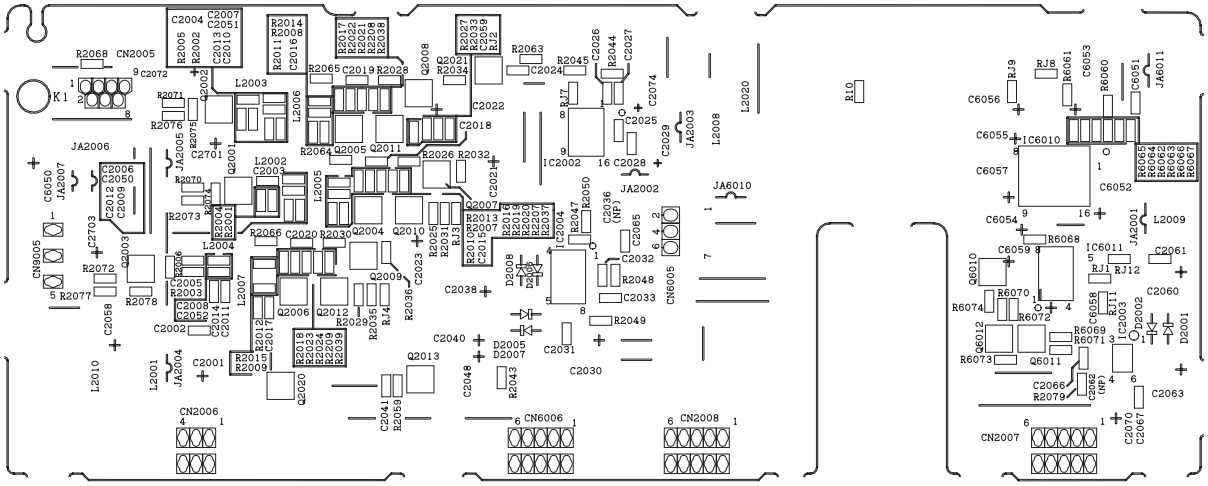
Component Side SIDE A



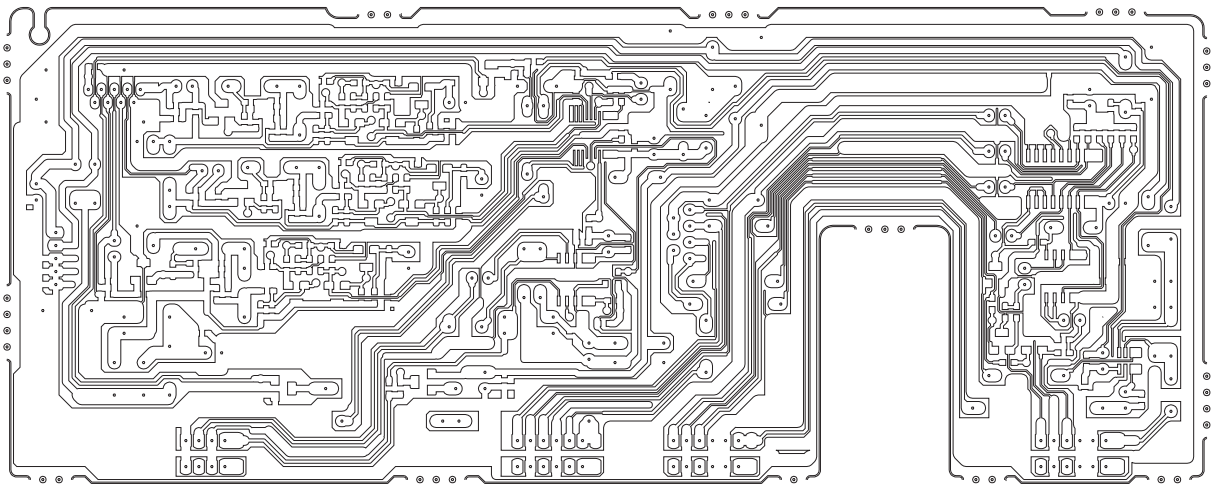
Wiring Side SIDE A



Component Side SIDE B

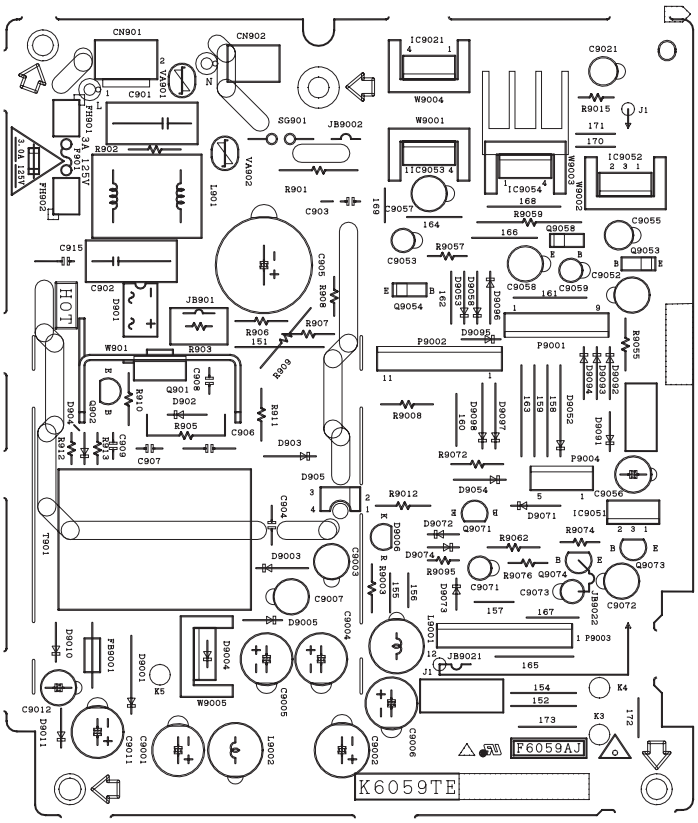


Wiring Side SIDE B

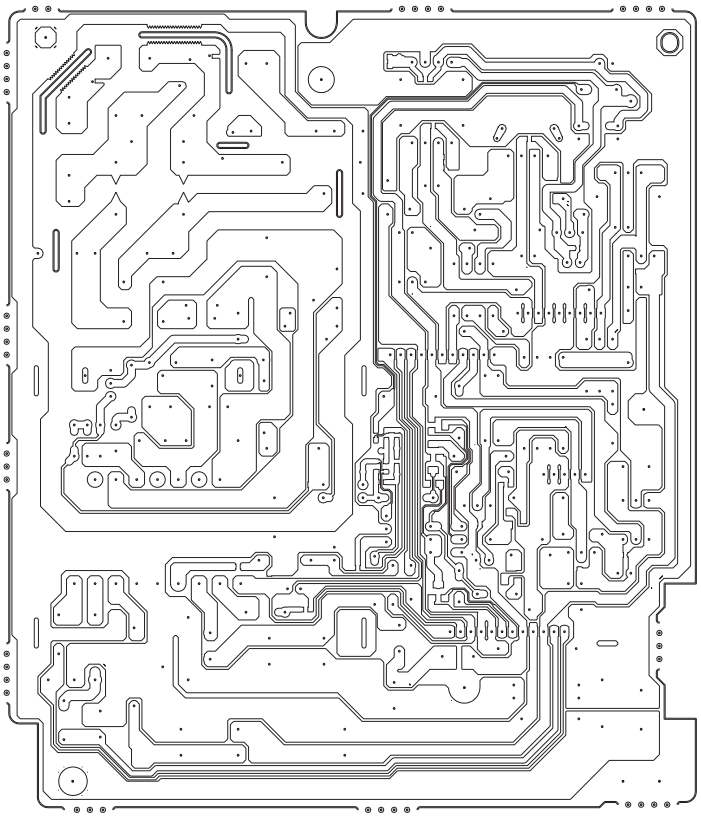


POWER PWB

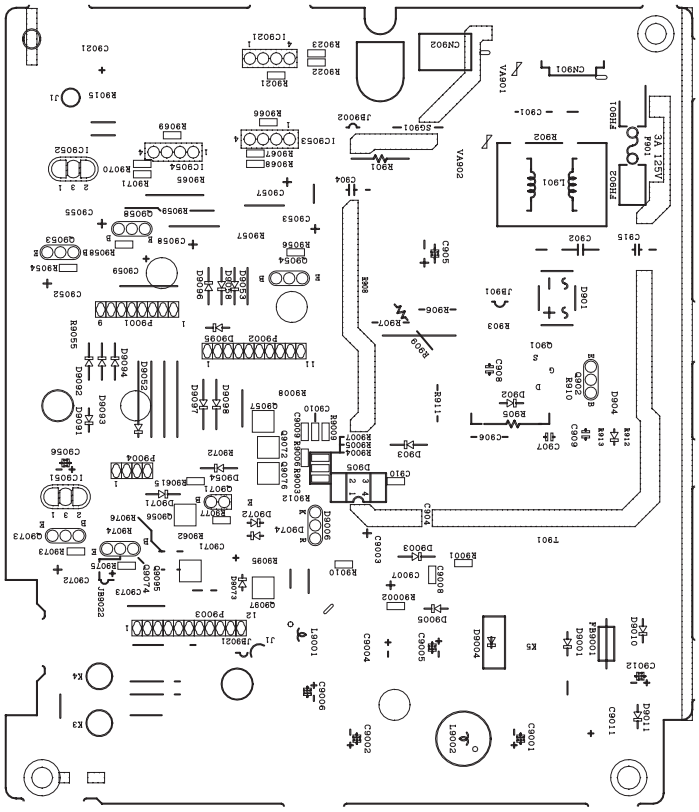
Component Side SIDE A



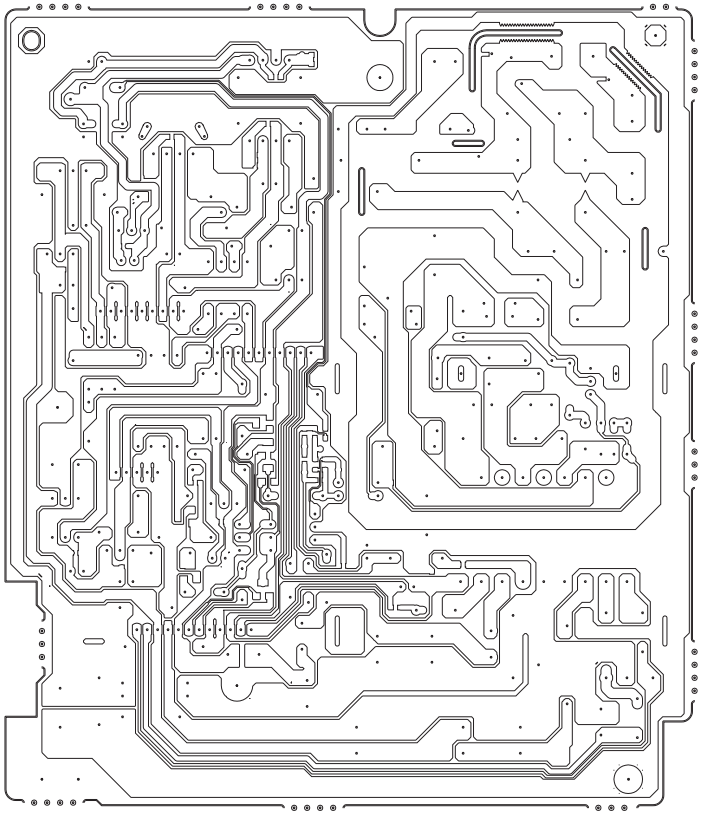
Wiring Side SIDE A



Component Side SIDE B

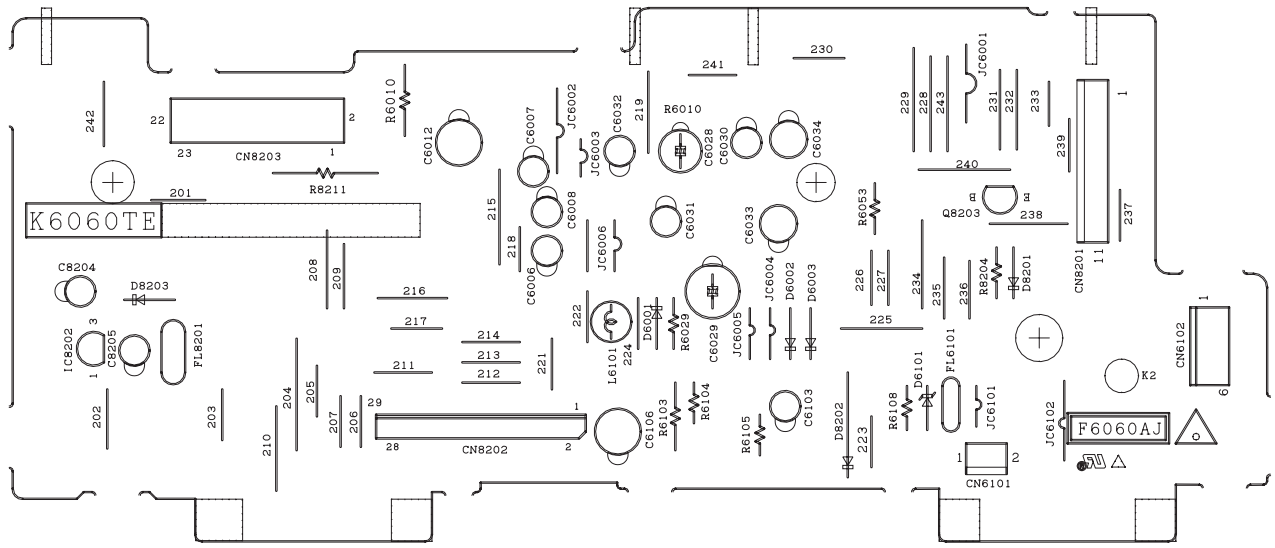


Wiring Side SIDE B

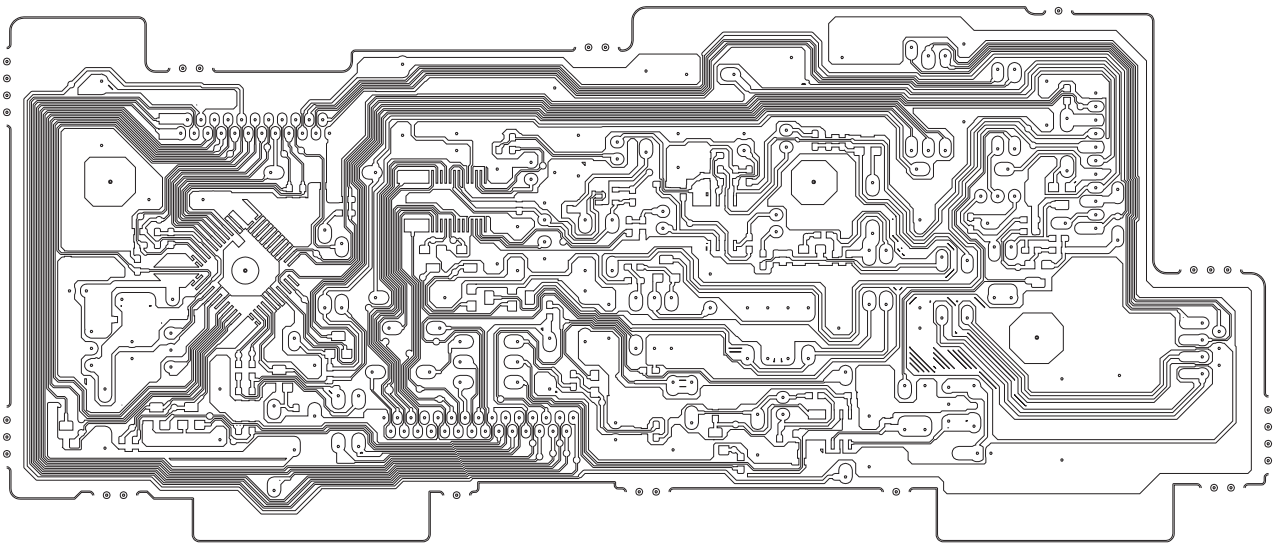


INTERFACE PWB

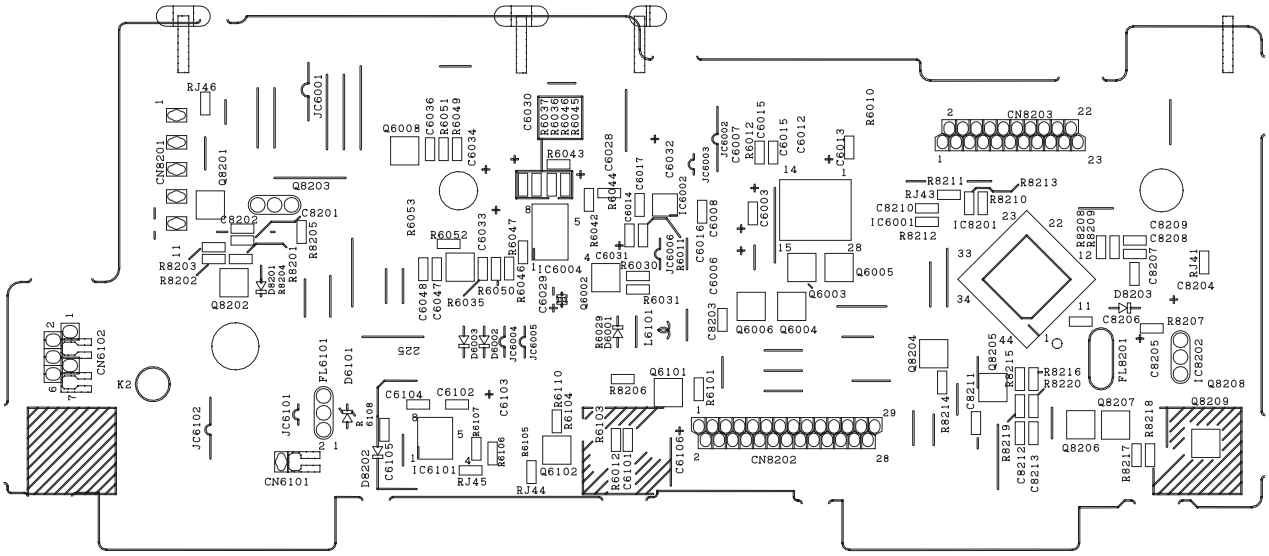
Component Side SIDE A



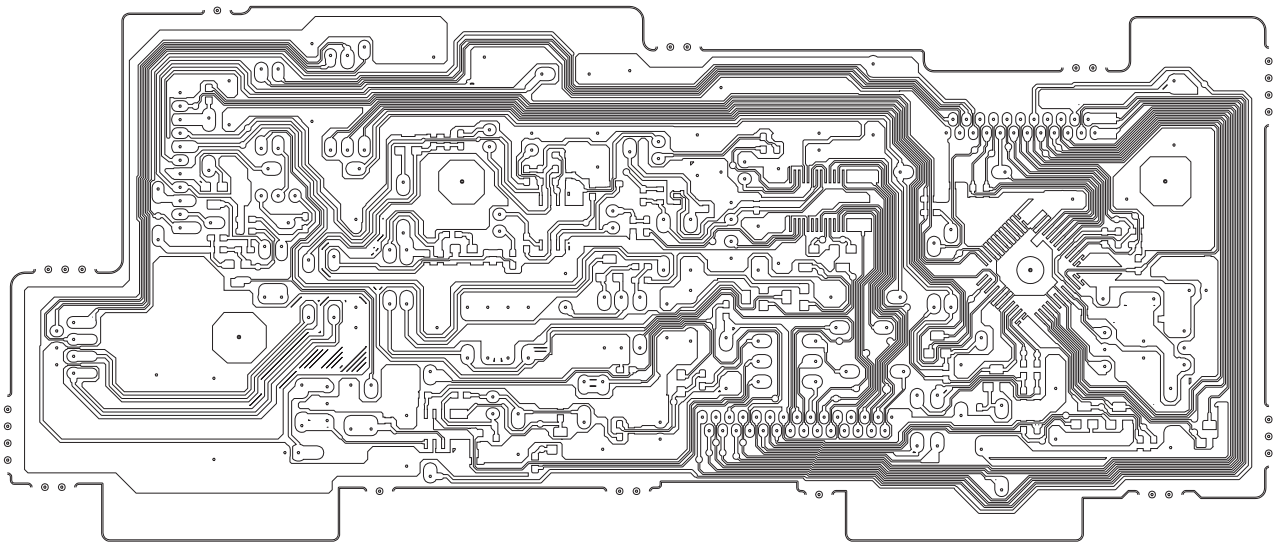
Wiring Side SIDE A



Component Side SIDE B



Wiring Side SIDE B



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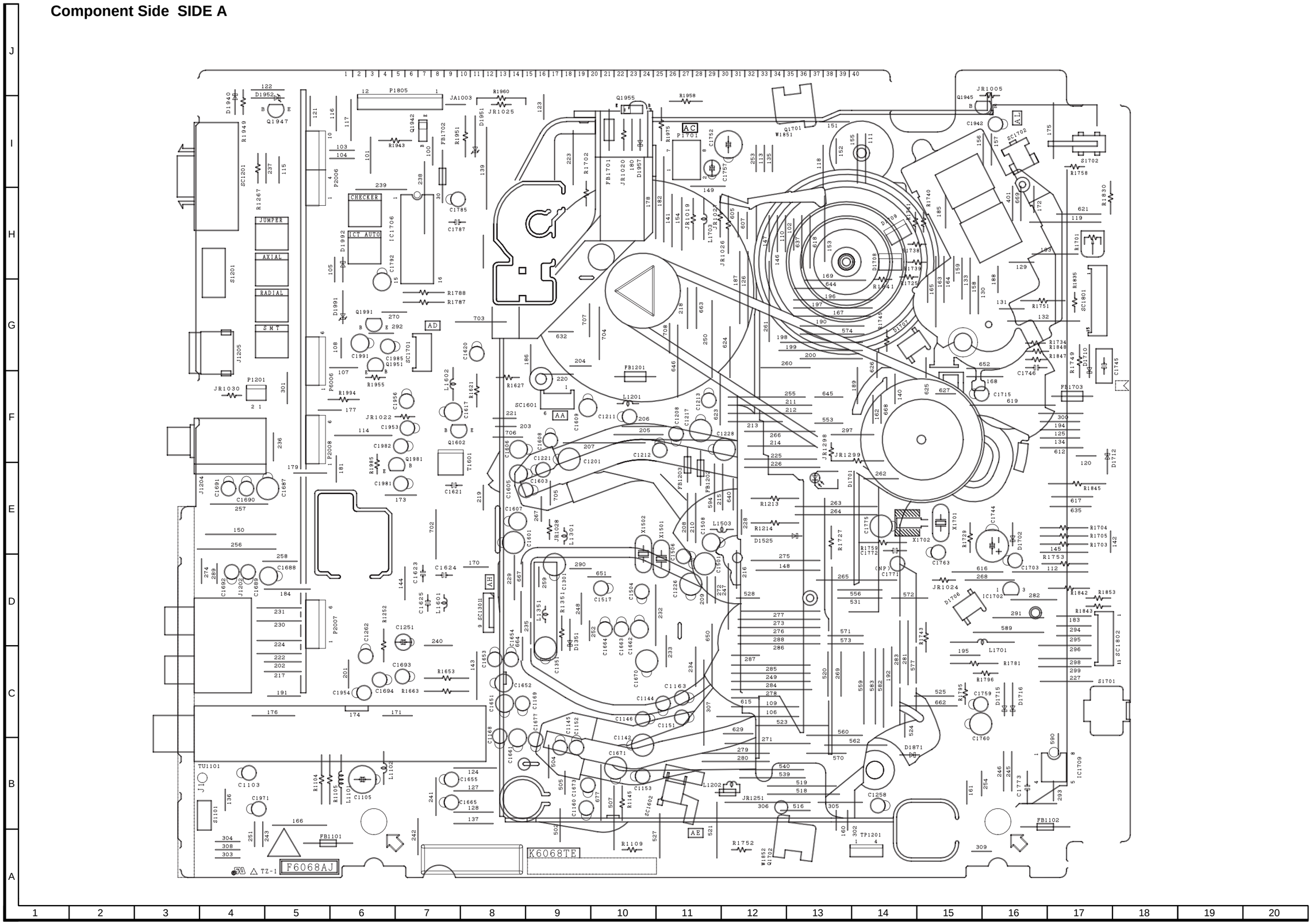
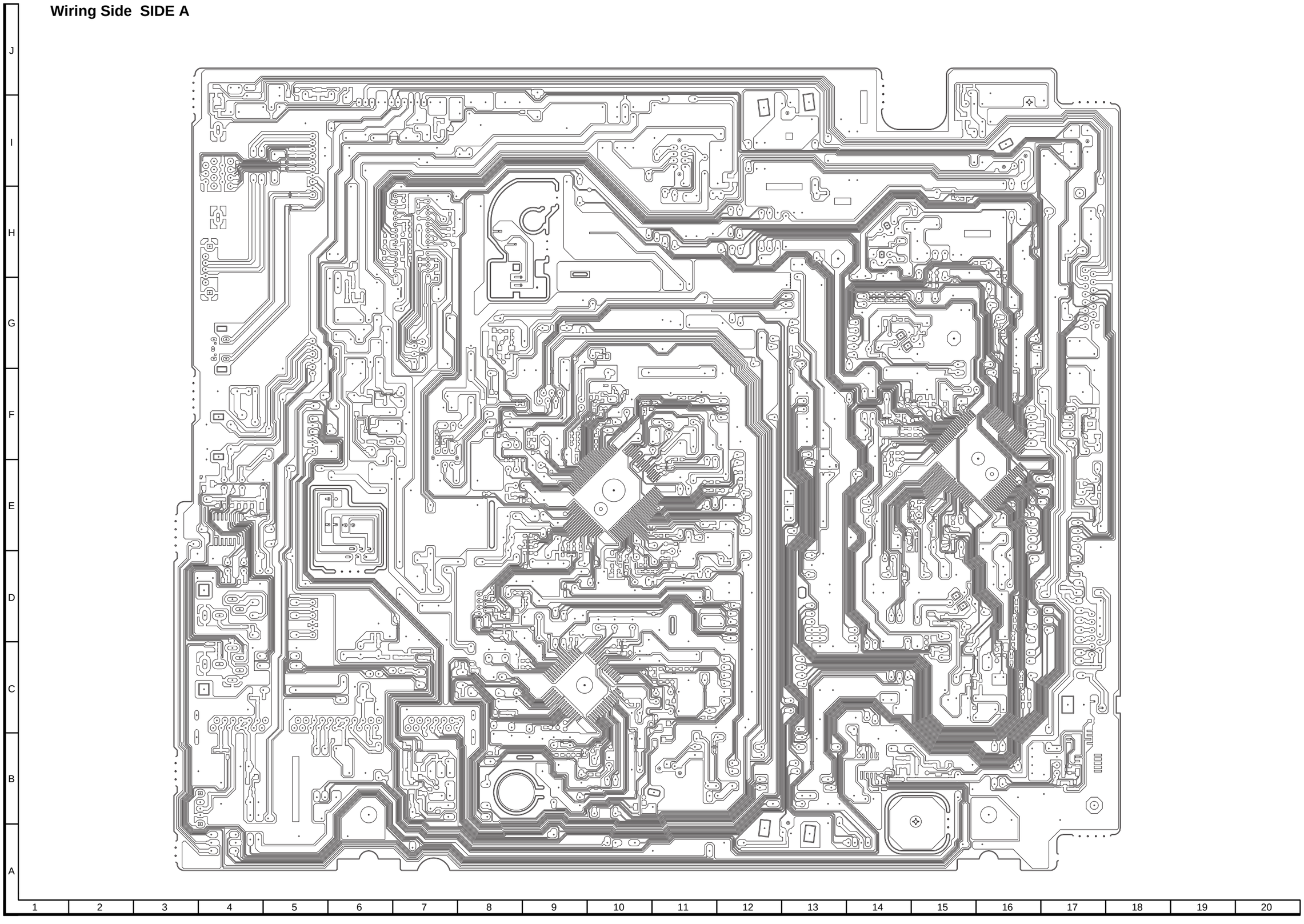
VTR MAIN PWB

Component Side SIDE A



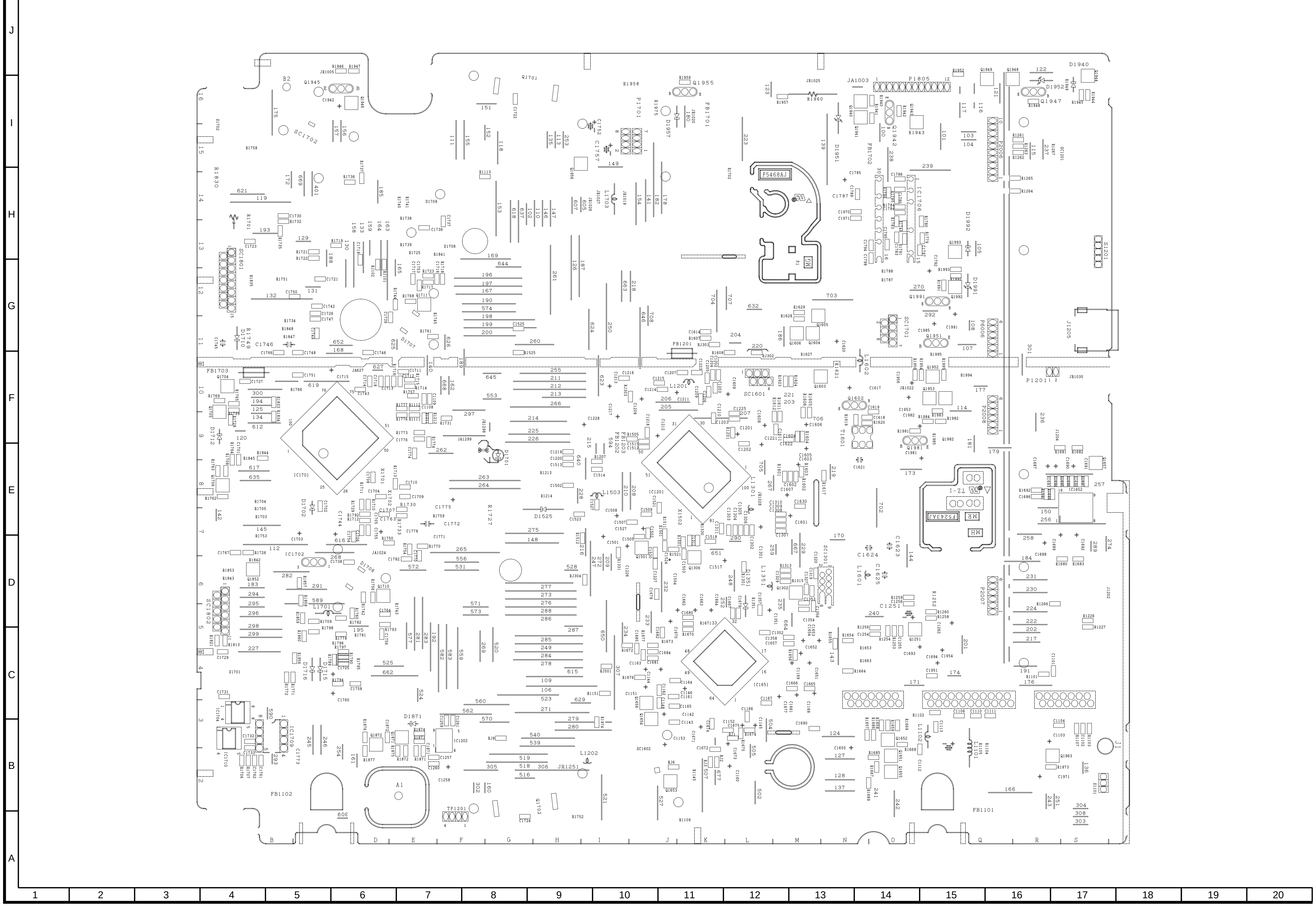
DV-NC55U/C/M

Wiring Side SIDE A



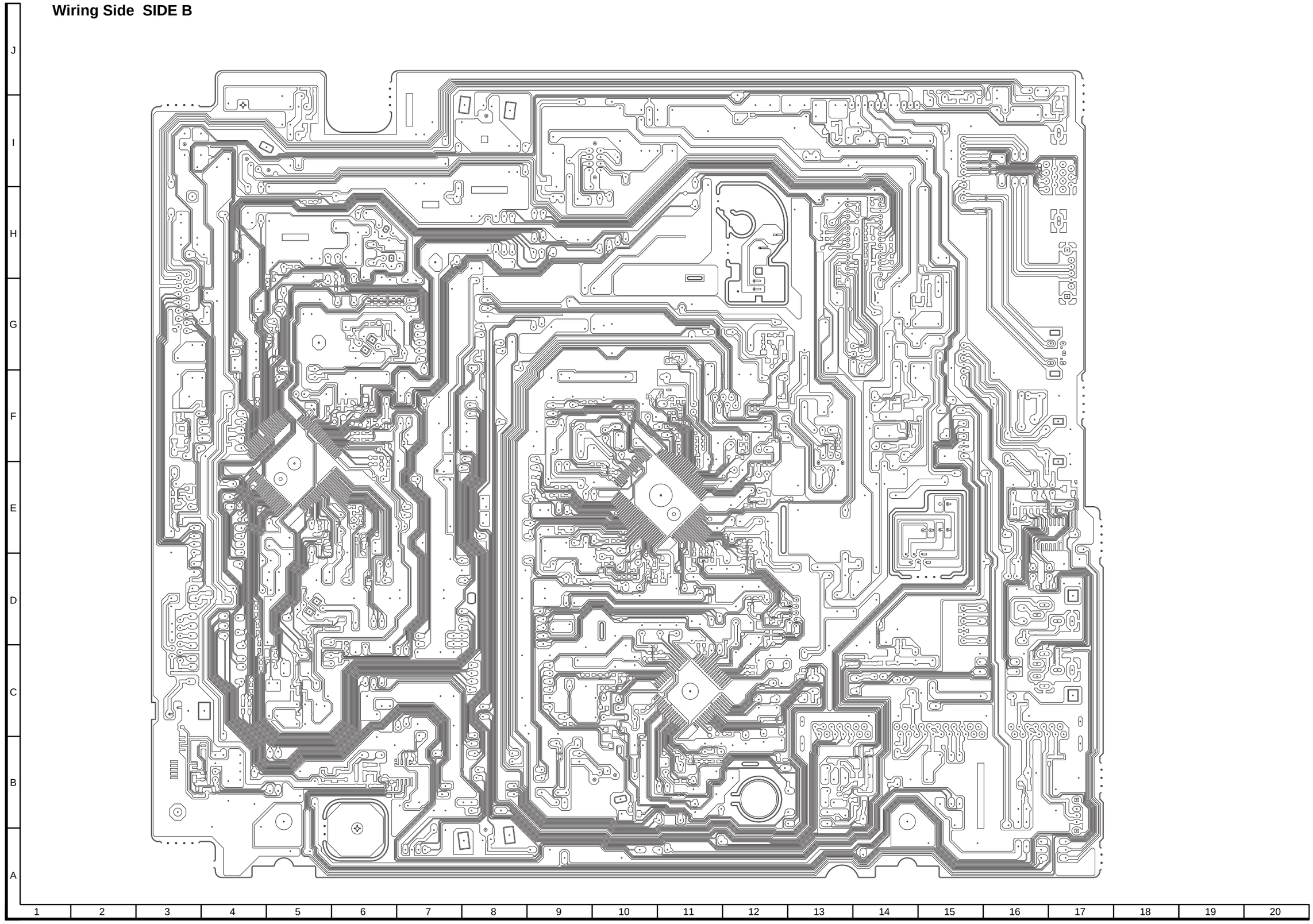
DV-NC55U/C/M

Component Side SIDE B



DV-NC55U/C/M

Wiring Side SIDE B



- M E M O -

15.REPLACEMENT PARTS LIST/ EXPLODED VIEWS

ELECTRICAL PARTS LIST

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

Les pièces marquéss "⚠" sont importantes pour maintenir la sècurité de l'appareil. Ne remplacer ces pieces que par des pièces dont le numéro est spécifié pour maintenir la sécurité et protéger le bon fonctinnement de l'appareil.

" HOW TO ORDER REPLACEMENT PARTS"

in USA: Contact your nearest SHARP Parts Distributor. For location of SHARP Parts Distributor,
Call Toll-free 1-IBE800-SHARP

in CANADA: Contact SHARP Electronics of Canada Limited
Phone (416) 890-2100.

★MARK : SPARE PARTS-DELIVERY SECTION:ALL JAPAN

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER **2. REF. NO.**
3. PART NO. **4. DESCRIPTION**
5. PRICE CODE

⚠ MARK: SAFETY RELATED PARTS
⚠ PIECES: RELATIVES A LA SECURITE

PWB ASSEMBLY IS NOT REPLACEMENT ITEM
L'ASSEMBLANGE P.C.I. EST UN ARTICLE NON REMPLACABLE

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

DUNTK6054TE6D	DVD Main PWB Unit	—
DUNTK6056TEV2	VTR Display PWB Unit	—
DUNTK6057TEV2	DVD Display PWB Unit	—
DUNTK6058TEV2	Audio/Video PWB Unit	—
DUNTK6059TEV2	Power PWB Unit	—
DUNTK6060TEV2	Interface PWB Unit	—
DUNTK6068TEV2	VTR Main PWB Unit	—

DUNTK6054TE6D
DVD MAIN PWB UNIT

INTEGRATED CIRCUITS

IC301	VHiTA1323F+-1Q	TA1323F+, RF Processor	AV
IC501	RH-iX1689GEZZ	IX1689GE, Flash ROM 8M	BB
IC502	RH-iX1765GEZZY	IX1765GE, Work RAM 4M EDO	AX
IC503	VHiPST600iM-1	PST600iM, Reset	AE
IC504	RH-iX1687GEZZ	IX1687GE, Micro Com.	BD
IC507	VHiBR93L66F-1	BR93L66F, E²PROM	AH
IC508	RH-iX1761GEZZQ	IX1761GE	AW
IC601	RH-iX1720GEZZQ	IX1720GE, AV Decoder	BG
IC602	RH-iX3455CEZZ	IX3455CE, 16M SDRAM	AZ
IC603	RH-iX3455CEZZ	IX3455CE, 16M SDRAM	AZ
IC701	VHiTC94A03F-1Q	TC94A03F, Servo ECC	BC
IC702	RH-iX3420CEZZ	IX3420CE, 4M EDO DRAM	AT
IC705	VHiNJM12904-1Y	NJM12904	AE
IC7701	VHiBA5984FP-1	BA5984FP, Motor Driver	AR
IC7702	VHiTC4W53F/-1	TC4W53F	AE

TRANSISTORS

Q202	VS2SA1576A+-1	2SA1576A+	AB
Q203	VS2SA1576A+-1	2SA1576A+	AB
Q205	VS2SA1576A+-1	2SA1576A+	AB
Q301	VS2SA1576A+-1	2SA1576A+	AB
Q302	VS2SB1197K/-1	2SB1197K	AC
Q303	VS2SB1197K/-1	2SB1197K	AC
Q502	VS2SB1197K/-1	2SB1197K	AC
Q503	VSDTC144EUA-1	DTC144EUA	AB
Q701	VSDTC144EUA-1	DTC144EUA	AB
Q702	VSDTC144EUA-1	DTC144EUA	AB

DIODES

D301	VHDDAP222//-1	DAP222	AA
D501	VHDDAN222//-1	DAN222	AA

PACKAGED CIRCUIT

X601	RCRSC0039GEZZY	Crystal, CRSC0039GE	AH

FILTER

FL501	RFiLC0207GEZZ	Filter, FiLC0207GE	AD

COILS

L601	VP-NM470K2R0N	Peaking, 47µH	AB
L602	VP-NM470K2R0N	Peaking, 47µH	AB

CAPACITORS

C204	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C205	VCEAPF0JW476M	47	6.3V	Electrolytic	AB
C206	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C207	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C208	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C209	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C210	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C211	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C212	RC-EZ0475GEZZ	220	6.3V	Electrolytic	AD
C213	RC-EZ0475GEZZ	220	6.3V	Electrolytic	AD
C214	RC-EZ0475GEZZ	220	6.3V	Electrolytic	AD
C302	VCKYCY0JF105Z	1	6.3V	Ceramic	AB
C303	VCKYCY0JF105Z	1	6.3V	Ceramic	AB
C306	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C307	VCEAPF0JW107M	100	6.3V	Electrolytic	AC
C308	VCEAPF0JW476M	47	6.3V	Electrolytic	AB
C309	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C310	VCEAPF0JW476M	47	6.3V	Electrolytic	AB
C311	VCEAPF1HW225M	2.2	50V	Electrolytic	AB
C312	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C313	VCKYCY1HB102K	1000p	50V	Ceramic	AA
C314	VCKYCY1HB102K	1000p	50V	Ceramic	AA
C315	VCEAPF0JW476M	47	6.3V	Electrolytic	AB
C316	VCKYCY1HB102K	1000p	50V	Ceramic	AA
C317	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C318	VCKYCY1HB102K	1000p	50V	Ceramic	AA
C319	VCEAPF0JW476M	47	6.3V	Electrolytic	AB
C320	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C321	VCEAPF0JW476M	47	6.3V	Electrolytic	AB
C322	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C323	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C324	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C325	VCKYCY1HB472K	4700p	50V	Ceramic	AA
C326	VCKYCY1HB472K	4700p	50V	Ceramic	AA
C328	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C332	VCKYCY1HB102K	1000p	50V	Ceramic	AA
C501	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C502	VCEAPF0JW107M	100	6.3V	Electrolytic	AC
C503	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C504	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C506	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C508	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C510	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C511	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C512	VCKYCY0JF105Z	1	6.3V	Ceramic	AB
C515	VCKYCY1HB103K	0.01	50V	Ceramic	AA
C516	VCKYCY1HB103K	0.01	50V	Ceramic	AA

DUNTK6054TE6D
DVD MAIN PWB UNIT(Continued)

Ref. No.	Part No.	★	Description			Code
C517	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C519	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C520	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C521	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C522	VCEAPF0JW476M		47	6.3V	Electrolytic	AB
C523	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C524	VCKYCY1HB472K		4700p	50V	Ceramic	AA
C525	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C526	VCEAPF0JW476M		47	6.3V	Electrolytic	AB
C527	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C528	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C529	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C602	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C603	RC-EZ0475GEZZ		220	6.3V	Electrolytic	AD
C604	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C605	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C606	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C609	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C610	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C613	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C614	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C617	RC-EZ0475GEZZ		220	6.3V	Electrolytic	AD
C618	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C619	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C620	RC-EZ0475GEZZ		220	6.3V	Electrolytic	AD
C621	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C623	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C624	VCEAPF0JW476M		47	6.3V	Electrolytic	AB
C625	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C626	VCCCCY1HH100D		10p	50V	Ceramic	AA
C627	VCCCCY1HH100D		10p	50V	Ceramic	AA
C628	VCEAPF0JW476M		47	6.3V	Electrolytic	AB
C629	RC-EZ0475GEZZ		220	6.3V	Electrolytic	AD
C630	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C631	VCEAPF0JW476M		47	6.3V	Electrolytic	AB
C632	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C633	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C635	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C640	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C641	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C643	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C644	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C646	VCEAPF0JW107M		100	6.3V	Electrolytic	AC
C701	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C702	VCCCCY1HH820J		82p	50V	Ceramic	AA
C703	VCCCCY1HH820J		82p	50V	Ceramic	AA
C704	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C705	VCCCCY1HH221J		220p	50V	Ceramic	AA
C706	VCCCCY1HH221J		220p	50V	Ceramic	AA
C707	VCEAPF0JW476M		47	6.3V	Electrolytic	AB
C708	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C709	VCCCCY1HH221J		220p	50V	Ceramic	AA
C710	VCEAPF1CW106M		10	16V	Electrolytic	AB
C711	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C712	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C713	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C714	VCEAPF0JW476M		47	6.3V	Electrolytic	AB
C715	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C716	VCCCCY1HH221J		220p	50V	Ceramic	AA
C717	VCKYCY1HB472K		4700p	50V	Ceramic	AA
C718	VCKYCY1HB153K		0.015	50V	Ceramic	AA
C720	VCKYCY1HB682K		6800p	50V	Ceramic	AA
C721	VCKYCY1HB153K		0.015	50V	Ceramic	AA
C722	VCKYCY1HB153K		0.015	50V	Ceramic	AA
C723	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C725	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C726	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C727	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C728	VCCCCY1HH221J		220p	50V	Ceramic	AA
C729	VCKYCY1HB472K		4700p	50V	Ceramic	AA
C730	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C731	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C732	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C733	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C734	VCCCCY1HH561J		560p	50V	Ceramic	AB
C735	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C741	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C742	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C744	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C746	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C747	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C748	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C749	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C750	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C751	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C752	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C753	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C756	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C757	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C758	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C759	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C7702	VCKYCY1HB103K		0.01	50V	Ceramic	AA
C7703	VCEAPF1CW106M		10	16V	Electrolytic	AB
C7704	VCCCCY1HH101J		100p	50V	Ceramic	AA
C7705	VCCCCY1HH221J		220p	50V	Ceramic	AA
C7706	VCKYCY1CB104K		0.1	16V	Ceramic	AB
FL701	RCRMC0001GEZZY		Ceramic VIBRATOR			AD

RESISTORS

R225	VRS-CY1JF681J	680	1/16W	Metal Oxide	AA
R226	VRS-CY1JF681J	680	1/16W	Metal Oxide	AA
R227	VRS-CY1JF681J	680	1/16W	Metal Oxide	AA
R303	VRS-CY1JF222J	2.2k	1/16W	Metal Oxide	AA
R310	VRS-CY1JF472J	4.7k	1/16W	Metal Oxide	AA
R311	VRS-CY1JF335J	3.3M	1/16W	Metal Oxide	AA
R314	VRS-TW2ED330J	33	1/4W	Metal Oxide	AA
R315	VRS-CY1JF471J	470	1/16W	Metal Oxide	AA
R316	VRS-CY1JF335J	3.3M	1/16W	Metal Oxide	AA
R317	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R318	VRS-TW2ED470J	47	1/4W	Metal Oxide	AA
R319	VRS-TW2ED470J	47	1/4W	Metal Oxide	AA
R320	VRS-CY1JF471J	470	1/16W	Metal Oxide	AA
R325	VRS-CY1JF820J	82	1/16W	Metal Oxide	AA
R326	VRS-CY1JF100J	10	1/16W	Metal Oxide	AA
R327	VRS-CY1JF820J	82	1/16W	Metal Oxide	AA
R328	VRS-CY1JF100J	10	1/16W	Metal Oxide	AA
R343	VRS-CY1JF000J	0	1/16W	Metal Oxide	AA
R344	VRS-CY1JF000J	0	1/16W	Metal Oxide	AA
R345	VRS-CY1JF000J	0	1/16W	Metal Oxide	AA
R501	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R502	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R503	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R504	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R505	VRS-CY1JF332J	3.3k	1/16W	Metal Oxide	AA
R506	VRS-CY1JF332J	3.3k	1/16W	Metal Oxide	AA
R507	VRS-CY1JF332J	3.3k	1/16W	Metal Oxide	AA
R508	VRS-CY1JF100J	10	1/16W	Metal Oxide	AA
R509	VRS-CY1JF100J	10	1/16W	Metal Oxide	AA
R510	VRS-CY1JF100J	10	1/16W	Metal Oxide	AA
R511	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R513	VRS-CY1JF472J	4.7k	1/16W	Metal Oxide	AA
R514	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R515	VRS-CY1JF154J	150k	1/16W	Metal Oxide	AA
R516	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R517	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R518	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R519	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R520	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R522	VRS-CY1JF100J	10	1/16W	Metal Oxide	AA
R523	VRS-CY1JF473J	47k	1/16W	Metal Oxide	AA
R524	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R525	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R528	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R529	VRS-CY1JF472J	4.7k	1/16W	Metal Oxide	AA
R530	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R531	VRS-CY1JF472J	4.7k	1/16W	Metal Oxide	AA
R532	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA

DUNTK6054TE6D
DVD MAIN PWB UNIT(Continued)

Ref. No.	Part No.	★	Description	Code
R533	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R534	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R535	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R536	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R537	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R538	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R540	VRS-CY1JF472J		4.7k 1/16W Metal Oxide	AA
R541	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA
R543	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R544	VRS-CY1JF472J		4.7k 1/16W Metal Oxide	AA
R545	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA
R552	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R555	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R556	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA
R557	VRS-CY1JF222J		2.2k 1/16W Metal Oxide	AA
R558	VRS-CY1JF472J		4.7k 1/16W Metal Oxide	AA
R560	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R561	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R564	VRS-CY1JF562J		5.6k 1/16W Metal Oxide	AA
R565	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R566	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R568	VRS-CY1JF101J		100 1/16W Metal Oxide	AA
R569	VRS-CY1JF101J		100 1/16W Metal Oxide	AA
R570	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R571	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R601	VRS-CY1JF100J		10 1/16W Metal Oxide	AA
R602	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R603	VRS-CY1JF560F		56 1/16W Metal Oxide	AA
R604	VRS-CY1JF391F		390 1/16W Metal Oxide	AA
R607	VRS-CY1JF560F		56 1/16W Metal Oxide	AA
R608	VRS-CY1JF560F		56 1/16W Metal Oxide	AA
R610	VRS-CY1JF560F		56 1/16W Metal Oxide	AA
R612	VRS-CY1JF684J		680k 1/16W Metal Oxide	AA
R613	VRS-CY1JF101J		100 1/16W Metal Oxide	AA
R615	VRS-CY1JF221J		220 1/16W Metal Oxide	AA
R616	VRS-CY1JF391J		390 1/16W Metal Oxide	AA
R617	VRS-CY1JF221J		220 1/16W Metal Oxide	AA
R620	VRS-CY1JF221J		220 1/16W Metal Oxide	AA
R621	VRS-CY1JF221J		220 1/16W Metal Oxide	AA
R622	VRS-CY1JF180J		18 1/16W Metal Oxide	AA
R701	VRS-CY1JF223J		22k 1/16W Metal Oxide	AA
R702	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R703	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R704	VRS-CY1JF223J		22k 1/16W Metal Oxide	AA
R705	VRS-CY1JF682J		6.8k 1/16W Metal Oxide	AA
R706	VRS-CY1JF222J		2.2k 1/16W Metal Oxide	AA
R707	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R708	VRS-CY1JF123J		12k 1/16W Metal Oxide	AA
R709	VRS-CY1JF123J		12k 1/16W Metal Oxide	AA
R710	VRS-CY1JF123J		12k 1/16W Metal Oxide	AA
R711	VRS-CY1JF123J		12k 1/16W Metal Oxide	AA
R712	VRS-CY1JF822J		8.2k 1/16W Metal Oxide	AA
R713	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R714	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R715	VRS-CY1JF154J		150k 1/16W Metal Oxide	AA
R716	VRS-CY1JF181J		180 1/16W Metal Oxide	AA
R717	VRS-CY1JF183J		18k 1/16W Metal Oxide	AA
R718	VRS-CY1JF151J		150 1/16W Metal Oxide	AA
R719	VRS-CY1JF151J		150 1/16W Metal Oxide	AA
R720	VRS-CY1JF151J		150 1/16W Metal Oxide	AA
R721	VRS-CY1JF222J		2.2k 1/16W Metal Oxide	AA
R724	VRS-CY1JF104J		100k 1/16W Metal Oxide	AA
R725	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA
R726	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R727	VRS-CY1JF331J		330 1/16W Metal Oxide	AA
R728	VRS-CY1JF331J		330 1/16W Metal Oxide	AA
R729	VRS-CY1JF393J		39k 1/16W Metal Oxide	AA
R730	VRS-CY1JF273J		27k 1/16W Metal Oxide	AA
R731	VRS-CY1JF273J		27k 1/16W Metal Oxide	AA
R732	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R734	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R735	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R736	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R737	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R738	VRS-CY1JF333F		33k 1/16W Metal Oxide	AA
R739	VRS-CY1JF472J		4.7k 1/16W Metal Oxide	AA
R740	VRS-CY1JF473F		47k 1/16W Metal Oxide	AA
R741	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R742	VRS-CY1JF333F		33k 1/16W Metal Oxide	AA
R743	VRS-CY1JF152J		1.5k 1/16W Metal Oxide	AA
R744	VRS-CY1JF473F		47k 1/16W Metal Oxide	AA
R745	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R746	VRS-CY1JF104J		100k 1/16W Metal Oxide	AA
R747	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R748	VRS-CY1JF333J		33k 1/16W Metal Oxide	AA
R749	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R750	VRS-CY1JF154J		150k 1/16W Metal Oxide	AA
R751	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R752	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R753	VRS-CY1JF334J		330k 1/16W Metal Oxide	AA
R754	VRS-CY1JF105J		1M 1/16W Metal Oxide	AA
R755	VRS-CY1JF471J		470 1/16W Metal Oxide	AA
R756	VRS-CY1JF100J		10 1/16W Metal Oxide	AA
R757	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R758	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R759	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA
R760	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA
R761	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R762	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R763	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R764	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R765	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R768	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R769	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R780	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R820	VRS-CY1JF472J		4.7k 1/16W Metal Oxide	AA
R821	VRS-CY1JF100J		10 1/16W Metal Oxide	AA
R822	VRS-CY1JF100J		10 1/16W Metal Oxide	AA
R823	VRS-CY1JF100J		10 1/16W Metal Oxide	AA
R824	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R825	VRS-CY1JF101J		100 1/16W Metal Oxide	AA
R7717	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA
R7721	VRS-CY1JF223J		22k 1/16W Metal Oxide	AA
R7722	VRS-CY1JF223J		22k 1/16W Metal Oxide	AA
R7724	VRS-CY1JF333J		33k 1/16W Metal Oxide	AA
R7725	VRS-CY1JF223J		22k 1/16W Metal Oxide	AA
R7726	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R7729	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R7730	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R7732	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA
R7734	VRS-CY1JF822J		8.2k 1/16W Metal Oxide	AA
R7736	VRS-CY1JF102J		1k 1/16W Metal Oxide	AA

BALUNES

FB301	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB601	RBLN-0061TAZZ	Balun, BLN-0061TA	AD
FB602	RBLN-0052TAZZ	Balun, BLN-0052TA	AC
FB603	RBLN-0061TAZZ	Balun, BLN-0061TA	AD
FB605	RBLN-0061TAZZ	Balun, BLN-0061TA	AD
FB806	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB807	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB808	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB809	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB810	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB813	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB814	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB815	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
FB816	RBLN-0076TAZZ	Balun, BLN-0076TA	AC
FB817	RBLN-0077TAZZ	Balun, BLN-0077TA	AB
R801	RBLN-0076TAZZ	Balun, BLN-0076TA	AC
R802	RBLN-0076TAZZ	Balun, BLN-0076TA	AC
R803	RBLN-0076TAZZ	Balun, BLN-0076TA	AC
R804	RBLN-0076TAZZ	Balun, BLN-0076TA	AC
R805	RBLN-0076TAZZ	Balun, BLN-0076TA	AC
R806	RBLN-0076TAZZ	Balun, BLN-0076TA	AC
R812	RBLN-0076TAZZ	Balun, BLN-0076TA	AC
R813	RBLN-0076TAZZ	Balun, BLN-0076TA	AC

Ref. No.	Part No.	★	Description	Code
DUNTK6054TE6D DVD MAIN PWB UNIT(Continued)				
R814	RBLN-0076TAZZ		Balun, BLN-0076TA	AC
R815	RBLN-0076TAZZ		Balun, BLN-0076TA	AC
R816	RBLN-0076TAZZ		Balun, BLN-0076TA	AC
R817	RBLN-0076TAZZ		Balun, BLN-0076TA	AC
R818	RBLN-0076TAZZ		Balun, BLN-0076TA	AC
R819	RBLN-0076TAZZ		Balun, BLN-0076TA	AC
MISCELLANEOUS PARTS				
CN201	QPLGN0964TAZZ		Plug, 9Pin	AF
CN301	QSOCN2336TAZZY		Socket, 23Pin	AF
CN302	QPLGN0464TAZZ		Plug, 4Pin	AC
CN701	QPLGN0664TAZZ		Plug, 6Pin	AD
CN702	QPLGN0564TAZZ		Plug, 5Pin	AC
CN703	QPLGN0364TAZZ		Plug, 3Pin	AC
CN801	QSOCN2936TAZZ		Socket, 29Pin	AF
CN802	QSOCN0936TAZZ		Socket, 9Pin	AD
DUNTK6056TEV2 VTR DISPLAY PWB UNIT				
INTEGRATED CIRCUIT				
IC5101	VHiMN12511/-1		MN12511	AQ
TRANSISTORS				
Q5101	VSKRC102S//-1		KRC102S	AA
Q5102	VSKRC102S//-1		KRC102S	AA
LED'S				
DG5101	VVK20U108SC-1		Display	AT
D5104	RH-PX0432GEZZ+		LED, Standby	AC
CAPACITORS				
C5101	VCEA9M1CW106M	10	16V Electrolytic	AB
C5102	VCKYCY1HF103Z	0.01	50V Ceramic	AA
C5103	VCKYCY1HF103Z	0.01	50V Ceramic	AA
C5104	VCEA9M1CW106M	10	16V Electrolytic	AB
C5105	VCKYCY1EF104Z	0.1	25V Ceramic	AA
C5106	VCKYCY1EF104Z	0.1	25V Ceramic	AA
RESISTORS				
R5101	VRD-RA2BE101J	100	1/8W Carbon	AB
R5102	VRS-CY1JF750J	75	1/16W Metal Oxide	AA
R5103	VRS-CY1JF122J	1.2k	1/16W Metal Oxide	AA
R5104	VRS-CY1JF272J	2.7k	1/16W Metal Oxide	AA
R5105	VRS-CY1JF473J	47k	1/16W Metal Oxide	AA
R5106	VRD-RA2BE101J	100	1/8W Carbon	AB
R5107	VRS-CY1JF332J	3.3k	1/16W Metal Oxide	AA
R5108	VRD-RA2BE472J	4.7k	1/8W Carbon	AA
R5109	VRS-CY1JF822J	8.2k	1/16W Metal Oxide	AA
R5110	VRS-CY1JF103J	10k	1/16W Metal Oxide	AA
R5111	VRD-RA2BE223J	22k	1/8W Carbon	AA
R5112	VRD-RA2BE563J	56k	1/8W Carbon	AA
R5113	VRD-RA2EE2R7J	2.7	1/4W Carbon	AA
R5114	VRD-RA2BE272J	2.7k	1/8W Carbon	AA
R5116	VRD-RA2BE122J	1.2k	1/8W Carbon	AA
SWITCHES				
S5101	QSW-K0003AJZZ		Switch, POWER	AB
S5102	QSW-K0003AJZZ		Switch, CH+	AB
S5103	QSW-K0003AJZZ		Switch, EJECT/STOP	AB
S5104	QSW-K0003AJZZ		Switch, REW	AB
S5105	QSW-K0003AJZZ		Switch, CH–	AB
S5106	QSW-K0003AJZZ		Switch, PLAY	AB
MISCELLANEOUS PARTS				
CN5101	QSOCN1195REZZ		Socket, 11Pin	AC
CN5102	QSOCN1199REZZ		Socket, 11Pin	AD
CN5103	QSOCN1595REZZ		Socket, 15Pin	AD
J5101	QJAKE0190CEZZ		Jack, VIDEO IN	AE
J5102	QJAKE0257GEZZ		Jack, AUDIO IN(L)	AE
J5103	QJAKE0180CEZZ		Jack, AUDIO IN(R)	AE
RMC5101	RRMCU0085GEZZ		Remote Receiver	AG
DUNTK6057TEV2 DVD DISPLAY PWB UNIT				
INTEGRATED CIRCUIT				
IC5001	VHiPT6312LQ-1		PT6312LQ, FL Driver	AM
TRANSISTORS				
Q5003	VSKRC102S//-1		KRC102S	AA
Q5004	VSKRC102S//-1		KRC102S	AA
Q5005	VSKRC102S//-1		KRC102S	AA
Q5006	VSKRC102S//-1		KRC102S	AA
Q5007	VSKRC102S//-1		KRC102S	AA
DIODES AND LED'S				
DG5001	VVK06SS72T+-1		Display	AS
D5001	RH-PX0432GEZZ+		LED, DUB	AC
D5002	VHPSEL1913K-1+		LED, DVD	AD
D5003	VHD1SS119//-1		1SS119	AB
D5004	RH-EX0601GEZZ		Zener, EX0601GE	AA
CAPACITORS				
C5005	VCKYCY1HF103Z	0.01	50V Ceramic	AA
C5006	VCEA9M1CW106M	10	16V Electrolytic	AB
C5007	VCKYCY1HF103Z	0.01	50V Ceramic	AA
C5008	VCCCCY1HH330J	33p	50V Ceramic	AA
C5009	VCCCCY1HH330J	33p	50V Ceramic	AA
C5010	VCCCCY1HH330J	33p	50V Ceramic	AA
C5011	VCKYCY1HF103Z	0.01	50V Ceramic	AA
RESISTORS				
R5001	VRD-RA2BE102J	1k	1/8W Carbon	AA
R5002	VRD-RA2BE181J	180	1/8W Carbon	AA
R5003	VRS-CY1JF561J	560	1/16W Metal Oxide	AA
R5010	VRS-CY1JF333J	33k	1/16W Metal Oxide	AA
R5011	VRD-RA2BE103J	10k	1/8W Carbon	AA
R5012	VRD-RA2BE103J	10k	1/8W Carbon	AA
R5013	VRD-RA2BE103J	10k	1/8W Carbon	AA
R5014	VRS-CY1JF333J	33k	1/16W Metal Oxide	AA
R5015	VRS-CY1JF183J	18k	1/16W Metal Oxide	AA
R5016	VRD-RM2HD2R7J	2.7	1/2W Carbon	AA
R5017	VRS-CY1JF332J	3.3k	1/16W Metal Oxide	AA
R5018	VRS-CY1JF332J	3.3k	1/16W Metal Oxide	AA
SWITCHES				
S5001	QSW-K0003AJZZ		Switch, OPEN/CLOSE	AB
S5002	QSW-K0003AJZZ		Switch, PLAY	AB
S5003	QSW-K0003AJZZ		Switch, STOP	AB
MISCELLANEOUS PARTS				
CN5001	QSOCN2399REZZ		Socket, 23Pin	AE
CN5002	QSOCN1199REZZ		Socket, 11Pin	AD
DUNTK6058TEV2 AUDIO/VIDEO PWB UNIT				
INTEGRATED CIRCUITS				
IC2002	VHiLV4053AT-1		LV4053AT, Signal SW	AE
IC2003	VHiMM1508XN-1		MM1508XN, V DVD/VTR SW Driver	AE
IC2004	VHiNJM2268M-1		NJM2268M, S C/S Y Driver	AF
IC6010	VHiTC4053BF1E		TC4053BF, Audio SW	AF
IC6011	VHiNJM4565M-1Y		NJM4565M, BUFF	AD
TRANSISTORS				
Q2001	VS2SA1530ARS1		2SA1530AR	AC
Q2002	VS2SA1530ARS1		2SA1530AR	AC
Q2003	VS2SA1530ARS1		2SA1530AR	AC

DUNTK6058TEV2
AUDIO/VIDEO PWB UNIT(Continued)

Ref. No.	Part No.	★	Description	Code
Q2004	VS2SC3052EF-1		2SC3052EF	AC
Q2005	VS2SC3052EF-1		2SC3052EF	AC
Q2006	VS2SC3052EF-1		2SC3052EF	AC
Q2007	VS2SC3052EF-1		2SC3052EF	AC
Q2008	VS2SC3052EF-1		2SC3052EF	AC
Q2009	VS2SC3052EF-1		2SC3052EF	AC
Q2010	VS2SC3052EF-1		2SC3052EF	AC
Q2011	VS2SC3052EF-1		2SC3052EF	AC
Q2012	VS2SC3052EF-1		2SC3052EF	AC
Q2020	VSKRC103S//-1		KRC103S	AA
Q2021	VSKRC103S//-1		KRC103S	AA
Q6010	VSKRC103S//-1		KRC103S	AA
Q6011	VS2SD1306-E-1		2SD1306-E	AC
Q6012	VS2SD1306-E-1		2SD1306-E	AC

DIODES

D2001	VHD1SS119//-1		1SS119	AB
D2002	VHD1SS119//-1		1SS119	AB
D2005	VHD1SS119//-1		1SS119	AB
D2006	VHD1SS119//-1		1SS119	AB
D2007	VHD1SS119//-1		1SS119	AB
D2008	VHD1SS119//-1		1SS119	AB

COILS

L2002	VP-XF270K0000		Peaking, 27µH	AB
L2003	VP-XF270K0000		Peaking, 27µH	AB
L2004	VP-XF270K0000		Peaking, 27µH	AB
L2005	VP-XF270K0000		Peaking, 27µH	AB
L2006	VP-XF270K0000		Peaking, 27µH	AB
L2007	VP-XF270K0000		Peaking, 27µH	AB
L2010	VP-MK101K0000		Peaking, 100µH	AB
L2020	VP-MK100K0000		Peaking, 10µH	AB

CAPACITORS

C2003	VCCCCY1HH270J	27p	50V	Ceramic	AA
C2004	VCCCCY1HH270J	27p	50V	Ceramic	AA
C2005	VCCCCY1HH270J	27p	50V	Ceramic	AA
C2006	VCCCCY1HH680J	68p	50V	Ceramic	AA
C2007	VCCCCY1HH680J	68p	50V	Ceramic	AA
C2008	VCCCCY1HH680J	68p	50V	Ceramic	AA
C2009	VCCCCY1HH5R0C	5p	50V	Ceramic	AA
C2010	VCCCCY1HH5R0C	5p	50V	Ceramic	AA
C2011	VCCCCY1HH5R0C	5p	50V	Ceramic	AA
C2012	VCCCCY1HH390J	39p	50V	Ceramic	AA
C2013	VCCCCY1HH390J	39p	50V	Ceramic	AA
C2014	VCCCCY1HH390J	39p	50V	Ceramic	AA
C2018	VCCCCY1HH120J	12p	50V	Ceramic	AA
C2019	VCCCCY1HH120J	12p	50V	Ceramic	AA
C2020	VCCCCY1HH120J	12p	50V	Ceramic	AA
C2021	VCEA9M0JW476M	47	6.3V	Electrolytic	AB
C2022	VCEA9M0JW476M	47	6.3V	Electrolytic	AB
C2023	VCEA9M0JW476M	47	6.3V	Electrolytic	AB
C2025	VCKYCY1EB103K	0.01	25V	Ceramic	AA
C2026	VCKYCY1EB103K	0.01	25V	Ceramic	AA
C2027	VCKYCY1EB103K	0.01	25V	Ceramic	AA
C2030	VCEA9M0JW227M	220	6.3V	Electrolytic	AB
C2031	VCKYCY1EB103K	0.01	25V	Ceramic	AA
C2033	VCKYCY1EB103K	0.01	25V	Ceramic	AA
C2038	VCEA9M1CW226M	22	16V	Electrolytic	AB
C2040	VCEA2A0JW477M	470	6.3V	Electrolytic	AB
C2041	VCKYCY1EB103K	0.01	25V	Ceramic	AA
C2058	VCEA9M1CW107M	100	16V	Electrolytic	AB
C2059	VCKYCY1EB103K	0.01	25V	Ceramic	AA
C2063	VCEA2A0JW477M	470	6.3V	Electrolytic	AB
C2065	VCKYCY0JF105Z	1	6.3V	Ceramic	AB
C2066	VCKYCY0JF105Z	1	6.3V	Ceramic	AB
C2067	VCKYCY0JF105Z	1	6.3V	Ceramic	AB
C2071	VCEA9M0JW107M	100	6.3V	Electrolytic	AB
C2072	VCEA9M0JW107M	100	6.3V	Electrolytic	AB
C2074	VCEA9M0JW107M	100	6.3V	Electrolytic	AB
C2075	VCKYCY0JF105Z	1	6.3V	Ceramic	AB
C6051	VCKYCY1EB103K	0.01	25V	Ceramic	AA
C6052	VCEA9M1CW476M	47	16V	Electrolytic	AB
C6053	VCEA9M1CW107M	100	16V	Electrolytic	AB
C6054	VCEA9M1CW106M	10	16V	Electrolytic	AB
C6055	VCEA9M1CW106M	10	16V	Electrolytic	AB
C6056	VCEA9M1CW106M	10	16V	Electrolytic	AB
C6057	VCEA9M1CW106M	10	16V	Electrolytic	AB
C6058	VCEA9M1CW106M	10	16V	Electrolytic	AB
C6059	VCEA9M1CW106M	10	16V	Electrolytic	AB

RESISTORS

R2001	VRS-CY1JF152J	1.5k	1/16W	Metal Oxide	AA
R2002	VRS-CY1JF152J	1.5k	1/16W	Metal Oxide	AA
R2003	VRS-CY1JF152J	1.5k	1/16W	Metal Oxide	AA
R2004	VRS-CY1JF681J	680	1/16W	Metal Oxide	AA
R2005	VRS-CY1JF681J	680	1/16W	Metal Oxide	AA
R2006	VRS-CY1JF681J	680	1/16W	Metal Oxide	AA
R2007	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2008	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2009	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2010	VRS-CY1JF392J	3.9k	1/16W	Metal Oxide	AA
R2011	VRS-CY1JF392J	3.9k	1/16W	Metal Oxide	AA
R2012	VRS-CY1JF392J	3.9k	1/16W	Metal Oxide	AA
R2013	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2014	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2015	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2016	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R2017	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R2018	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R2019	VRS-CY1JF472J	4.7k	1/16W	Metal Oxide	AA
R2020	VRS-CY1JF471J	470	1/16W	Metal Oxide	AA
R2021	VRS-CY1JF472J	4.7k	1/16W	Metal Oxide	AA
R2022	VRS-CY1JF471J	470	1/16W	Metal Oxide	AA
R2023	VRS-CY1JF472J	4.7k	1/16W	Metal Oxide	AA
R2024	VRS-CY1JF471J	470	1/16W	Metal Oxide	AA
R2025	VRS-CY1JF821J	820	1/16W	Metal Oxide	AA
R2026	VRS-CY1JF331J	330	1/16W	Metal Oxide	AA
R2027	VRS-CY1JF821J	820	1/16W	Metal Oxide	AA
R2028	VRS-CY1JF331J	330	1/16W	Metal Oxide	AA
R2029	VRS-CY1JF821J	820	1/16W	Metal Oxide	AA
R2030	VRS-CY1JF271J	270	1/16W	Metal Oxide	AA
R2031	VRS-CY1JF682J	6.8k	1/16W	Metal Oxide	AA
R2032	VRS-CY1JF332J	3.3k	1/16W	Metal Oxide	AA
R2033	VRS-CY1JF682J	6.8k	1/16W	Metal Oxide	AA
R2034	VRS-CY1JF332J	3.3k	1/16W	Metal Oxide	AA
R2035	VRS-CY1JF682J	6.8k	1/16W	Metal Oxide	AA
R2036	VRS-CY1JF332J	3.3k	1/16W	Metal Oxide	AA
R2037	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2038	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2039	VRS-CY1JF391J	390	1/16W	Metal Oxide	AA
R2044	VRS-CY1JF151J	150	1/16W	Metal Oxide	AA
R2045	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R2047	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R2048	VRS-CY1JF820J	82	1/16W	Metal Oxide	AA
R2049	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R2050	VRS-CY1JF151J	150	1/16W	Metal Oxide	AA
R2063	VRS-CY1JF472J	4.7k	1/16W	Metal Oxide	AA
R2068	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R2073	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R2074	VRS-CY1JF182J	1.8k	1/16W	Metal Oxide	AA
R2075	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R2076	VRS-CY1JF182J	1.8k	1/16W	Metal Oxide	AA
R2077	VRS-CY1JF182J	1.8k	1/16W	Metal Oxide	AA
R2078	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R6060	VRS-CY1JF561J	560	1/16W	Metal Oxide	AA
R6061	VRS-CY1JF561J	560	1/16W	Metal Oxide	AA
R6062	VRS-CY1JF823J	82k	1/16W	Metal Oxide	AA
R6063	VRS-CY1JF823J	82k	1/16W	Metal Oxide	AA
R6064	VRS-CY1JF823J	82k	1/16W	Metal Oxide	AA
R6065	VRS-CY1JF823J	82k	1/16W	Metal Oxide	AA
R6066	VRS-CY1JF823J	82k	1/16W	Metal Oxide	AA
R6067	VRS-CY1JF823J	82k	1/16W	Metal Oxide	AA
R6068	VRS-CY1JF153J	15k	1/16W	Metal Oxide	AA
R6069	VRS-CY1JF104J	100k	1/16W	Metal Oxide	AA
R6070	VRS-CY1JF104J	100k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

DDUNTK6058TEV2
AUDIO/VIDEO PWB UNIT(Continued)

R6071	VRS-CY1JF821J		820	1/16W	Metal Oxide	AA
R6072	VRS-CY1JF821J		820	1/16W	Metal Oxide	AA
R6073	VRS-CY1JF272J		2.7k	1/16W	Metal Oxide	AA
R6074	VRS-CY1JF272J		2.7k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

CN2005	QSOCN0999REZZ	Socket, 9Pin	AD
CN2006	QSOCN0479GEZZ	Socket, 4Pin	AB
CN2007	QSOCN0679GEZZ	Socket, 6Pin	AC
CN2008	QSOCN0679GEZZ	Socket, 6Pin	AC
CN6005	QSOCN0795REZZ	Socket, 7Pin	AC
CN6006	QSOCN0679GEZZ	Socket, 6Pin	AC
CN9005	QPLGN0578GEZZ	Plug, 5Pin	AB

DUNTK6059TEV2
POWER PWB UNIT

INTEGRATED CIRCUITS

IC9021	VHiPQ15RW11-1	PQ15RW11, 5.2V REG	AG
IC9051	VHiT78DL09S-1	T78DL09S, 9V REG	AG
IC9052	VHiKA7808AP-1	KA7808AP, 8V REG	AE
IC9053	VHiPQ30RV11-1	PQ30RV11, 3.3V REG	AF
IC9054	VHiPQ30RV11-1	PQ30RV11, 1.8V REG	AF

TRANSISTORS

⚠ Q901	VS2SK2624LS-G	2SK2624LS	AG
⚠ Q902	VS2SD2144S/-1	2SD2144S	AC
Q9053	VS2SB1443TV1E	2SB1443TV	AE
Q9054	VS2SB1443TV1E	2SB1443TV	AE
Q9056	VS2SC3052EF-1	2SC3052EF	AC
Q9057	VSKRA103S//-1	KRA103S	AA
Q9058	VS2SB1443TV1E	2SB1443TV	AE
Q9071	VS2SA1271-Y-1	2SA1271-Y	AB
Q9072	VSKRC103S//-1	KRC103S	AA
Q9073	VS2SA1271-Y-1	2SA1271-Y	AB
Q9074	VS2SA1271-Y-1	2SA1271-Y	AB
Q9075	VSKRC103S//-1	KRC103S	AA

DIODES AND LED'S

⚠ D901	RH-DX0083GEZZ	DX0083GE	AC
⚠ D902	VHD1F4G////-1	1F4G	AC
⚠ D903	VHD1SS119//-1	1SS119	AB
⚠ D904	RH-EX0645GEZZ	Zener, EX0645GE	AB
⚠ D905	RH-FX0034CEZZ	FX0034CE	AE
D9001	VHDRU2YX+++-X	RU2YX+++	AD
D9003	VHD1F4G////-1	1F4G	AC
D9004	RH-DX0436CEZZ	DX0436CE	AG
D9005	VHD1F4G////-1	1F4G	AC
D9006	VHiMM1431AT-1	MM1431AT	AE
D9010	VHD1F4G////-1	1F4G	AC
D9011	VHD1F4G////-1	1F4G	AC
D9052	VHD1SS119//-1	1SS119	AB
D9053	VHD1SS119//-1	1SS119	AB
D9054	VHD1SS119//-1	1SS119	AB
D9058	VHD1SS119//-1	1SS119	AB
D9071	VHD1SS119//-1	1SS119	AB
D9072	VHD1SS119//-1	1SS119	AB
D9073	VHD1SS119//-1	1SS119	AB
D9091	VHD1SS119//-1	1SS119	AB
D9092	VHD1SS119//-1	1SS119	AB
D9093	VHD1SS119//-1	1SS119	AB
D9094	VHD1SS119//-1	1SS119	AB
D9097	VHD1SS119//-1	1SS119	AB
D9098	VHD1SS119//-1	1SS119	AB

COILS AND TRANSFORMER

⚠ L901	RCiLF0320GEZZ	Coi, CiLF0320GE	AF
L9001	RCiLP0184CEZZ	Coil, 10µH	AE
L9002	RCiLP0147GEZZ	Coil, 10µH	AC

Ref. No.	Part No.	★	Description	Code

⚠ T901	RTRNW0022AJZZ	Transformer		AM

CAPACITORS

⚠ C901	RC-FZ036SCEZZ	0.1	250V	Ceramic	AC
⚠ C902	RC-FZ036SCEZZ	0.1	250V	Ceramic	AC
⚠ C903	RC-KZ0091GEZZ	2200p	250V	Ceramic	AC
⚠ C904	RC-KZ0091GEZZ	2200p	250V	Ceramic	AC
⚠ C905	RC-EZ0463GEZZ	100	200V	Electrolytic	AG
⚠ C906	VCFYZP2GA473K	0.047	400V	Film Condenser	AC
⚠ C907	RC-KZ0112GEZZ	330p	2kV	Ceramic	AD
⚠ C908	RC-KZ0112CEZZ	100p	1kV	Ceramic	AB
⚠ C909	VCQYTA1HM562J	5600p	50V	Mylar	AA
⚠ C910	VCKYPA1HB272K	2700p	50V	Ceramic	AA
⚠ C915	RC-KZ0091GEZZ	2200p	250V	Ceramic	AC
C9001	VCEA0A1VW477M	470	35V	Electrolytic	AB
C9002	VCEAGA1EW337M	330	25V	Electrolytic	AC
C9003	VCEA9M1HW226M	22	50V	Electrolytic	AB
C9004	VCEA0A1AW228M	2200	10V	Electrolytic	AD
C9006	VCEA0A1AW228M	2200	10V	Electrolytic	AD
C9007	VCEA9M1CW107M	100	16V	Electrolytic	AB
C9008	VCKYCY1HF103Z	0.01	50V	Ceramic	AA
C9009	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C9010	VCKYCY1CB104K	0.1	16V	Ceramic	AB
C9011	VCEA0A1VW477M	470	35V	Electrolytic	AB
C9012	VCEA0A2AW106M	10	100V	Electrolytic	AC
C9021	VCEA9M0JW107M	100	6.3V	Electrolytic	AB
C9052	VCEA9M0JW227M	220	6.3V	Electrolytic	AB
C9053	VCEA9M1CW106M	10	16V	Electrolytic	AB
C9055	VCEA9M1CW476M	47	16V	Electrolytic	AB
C9056	VCEAEA1CW107M	100	16V	Electrolytic	AC
C9057	VCEA9M0JW107M	100	6.3V	Electrolytic	AB
C9058	VCEA9M0JW107M	100	6.3V	Electrolytic	AB
C9059	VCEA9M1CW106M	10	16V	Electrolytic	AB
C9071	VCEA9M1CW106M	10	16V	Electrolytic	AB
C9072	VCEA9M0JW227M	220	6.3V	Electrolytic	AB
C9073	VCEA9M1CW106M	10	16V	Electrolytic	AB
C9074	VCEA9M1CW106M	10	16V	Electrolytic	AB

RESISTORS

⚠ R901	VRC-UB2HG685K	6.8M	1/2W	Solid	AC
⚠ R902	VRD-RM2HD474J	470k	1/2W	Carbon	AB
⚠ R903	RR-WZ0017GEZZ	2.2	2W	Cement Resistor	AD
⚠ R905	VRS-VV3DB683J	68k	2W	Metal Oxide	AA
⚠ R906	VRD-RM2HD105J	1M	1/2W	Carbon	AA
⚠ R907	VRD-RM2HD105J	1M	1/2W	Carbon	AA
⚠ R908	VRD-RA2BE224J	220k	1/8W	Carbon	AA
⚠ R909	VRN-VV3DBR22J	0.22	2W	Metal Film	AB
⚠ R910	VRD-RM2HD681J	680	1/2W	Carbon	AA
⚠ R911	VRD-RA2BE102J	1k	1/8W	Carbon	AA
⚠ R912	VRD-RA2BE183J	18k	1/8W	Carbon	AA
⚠ R913	VRD-RA2BE223J	22k	1/8W	Carbon	AA
R9001	VRS-CY1JF000J	0	1/16W	Metal Oxide	AA
R9002	VRS-CY1JF1R0J	1	1/16W	Metal Oxide	AA
R9004	VRS-CY1JF221J	220	1/16W	Metal Oxide	AA
R9005	VRS-CY1JF272J	2.7k	1/16W	Metal Oxide	AA
R9006	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R9007	VRS-CY1JF332J	3.3k	1/16W	Metal Oxide	AA
R9009	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R9010	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R9015	VRD-RA2BE471J	470	1/8W	Carbon	AA
R9021	VRS-CY1JF152F	1.5k	1/16W	Metal Oxide	AA
R9022	VRS-CY1JF152F	1.5k	1/16W	Metal Oxide	AA
R9054	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R9055	VRD-RA2EE821J	820	1/4W	Carbon	AA
R9056	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R9057	VRD-RA2BE471J	470	1/8W	Carbon	AA
R9058	VRS-CY1JF103J	10k	1/16W	Metal Oxide	AA
R9059	VRD-RM2HD221J	220	1/2W	Carbon	AA
R9061	VRS-CY1JF102J	1k	1/16W	Metal Oxide	AA
R9062	VRD-RA2BE472J	4.7k	1/8W	Carbon	AA
R9066	VRS-CY1JF272F	2.7k	1/16W	Metal Oxide	AA
R9067	VRS-CY1JF182F	1.8k	1/16W	Metal Oxide	AA
R9068	VRS-CY1JF333F	33k	1/16W	Metal Oxide	AA
R9069	VRS-CY1JF102F	1k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description			Code
DUNTK6059TEV2 POWER PWB UNIT(Continued)						
R9070	VRS-CY1JF123J		12k	1/16W	Metal Oxide	AA
R9071	VRS-CY1JF222F		2.2k	1/16W	Metal Oxide	AA
R9072	VRD-RA2BE471J		470	1/8W	Carbon	AA
R9073	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R9074	VRD-RA2BE471J		470	1/8W	Carbon	AA
R9075	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R9076	VRD-RA2BE471J		470	1/8W	Carbon	AA
R9077	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R9078	VRD-RA2BE472J		4.7k	1/8W	Carbon	AA
BALUNES						
FB9001	RBLN-0088AJZZY		Balun, BLN-0088AJ			AB
FB9002	RBLN-0020CEZZ		Balun, BLN-0020CE			AB
MISCELLANEOUS PARTS						
⚠ FH901	QFSHD1014CEZZ		Fuse Holder			AC
⚠ FH902	QFSHD1013CEZZ		Fuse Holder			AC
⚠ F901	QFS-B3025CEZZ		Fuse, 3A 125V			AD
P9001	QPLGN0978GEZZ		Plug, 9Pin			AC
P9002	QPLGN1178GEZZ		Plug, 11Pin			AC
P9003	QPLGN1278GEZZ		Plug, 12Pin			AC
P9004	QPLGN0578GEZZ		Plug, 5Pin			AB
⚠ W901	PRDAF5021AJFW		Heat Sink, Q901			AE
⚠ W911	XBPSD30P10KS0		Screw			AA
W9001	PRDAR0103AJFW		Heat Sink, IC9053			AE
W9002	PRDAR0104AJFW		Heat Sink, IC9052			AD
W9003	PRDAF3014AJFW		Heat Sink, IC9054			AE
W9004	PRDAR0103AJFW		Heat Sink, IC9021			AE
W9005	PRDAR0104AJFW		Heat Sink, D9004			AD
W9011	XBPSD30P10KS0		Screw			AA
W9012	XBPSD30P10KS0		Screw			AA
W9013	XBPSD30P10KS0		Screw			AA
W9014	XBPSD30P10KS0		Screw			AA
W9015	XBPSD30P10KS0		Screw			AA
DUNTK6060TEV2 INTERFACE PWB UNIT						
INTEGRATED CIRCUITS						
IC6001	VHiPCM1737E-1Y		PCM1737E, Audio DAC			AN
IC6004	VHiNJM4565M-1Y		NJM4565M, Audio Amp			AD
IC6101	VHiTC4W53F/-1		TC4W53F			AE
IC8201	RH-iX1757GEZZQ		IX1757GE, Interface CPU			AQ
IC8202	VHiPST600H/-1		PST600H, Reset IC			AE
TRANSISTORS						
Q6002	VS2SA1530ARS1		2SA1530AR			AC
Q6003	VSKRC104S//-1		KRC104S			AA
Q6004	VSKRA103S//-1		KRA103S			AA
Q6005	VSKRC104S//-1		KRC104S			AA
Q6006	VSKRA103S//-1		KRA103S			AA
Q6007	VS2SD1306-E-1		2SD1306-E			AC
Q6008	VS2SD1306-E-1		2SD1306-E			AC
Q6009	VSKRC104S//-1		KRC104S			AA
Q6020	VSKRA103S//-1		KRA103S			AA
Q6101	VS2SC3052EF-1		2SC3052EF			AC
Q6102	VSKRC103S//-1		KRC103S			AA
Q8201	VSKRA103S//-1		KRA103S			AA
Q8202	VS2SC3052EF-1		2SC3052EF			AC
Q8203	VS2SC3203Y/-1		2SC3203Y			AB
Q8204	VSKRA103S//-1		KRA103S			AA
Q8205	VSKRC103S//-1		KRC103S			AA
Q8206	VSKRC103S//-1		KRC103S			AA
Q8207	VSKRC103S//-1		KRC103S			AA
Q8209	VSKRA102S//-1		KRA102S			AA
DIODES AND LED'S						
D6001	VHD1SS119//-1		1SS119			AB
D6002	VHD1SS119//-1		1SS119			AB
D6003	VHD1SS119//-1		1SS119			AB
D6006	VHD1SS119//-1		1SS119			AB
D6007	VHD1SS119//-1		1SS119			AB
D6101	RH-EX0609GEZZ		Zener, EX0609GE			AA
D8201	VHD1SS119//-1		1SS119			AB
D8202	VHD1SS119//-1		1SS119			AB
D8203	VHD1SS119//-1		1SS119			AB
FILTER						
FL8201	RFiLC0198GEZZ		Filter, FiLC0198GE			AE
COILS						
L6001	VP-DF150K0000		Peaking, 15µH			AB
L6101	VP-MK100K0000		Peaking, 10µH			AB
CAPACITORS						
C6003	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C6006	VCEA9M1CW106M		10	16V	Electrolytic	AB
C6007	VCEA9M1CW106M		10	16V	Electrolytic	AB
C6008	VCEA9M1CW106M		10	16V	Electrolytic	AB
C6012	VCEA9M0JW227M		220	6.3V	Electrolytic	AB
C6013	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C6014	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C6015	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C6028	VCEA2A1AW227M		220	10V	Electrolytic	AB
C6029	VCEA2A0JW477M		470	6.3V	Electrolytic	AB
C6030	VCEA9M1CW106M		10	16V	Electrolytic	AB
C6031	VCEA9M1CW106M		10	16V	Electrolytic	AB
C6032	VCEA9M1CW106M		10	16V	Electrolytic	AB
C6033	VCEA9M1CW226M		22	16V	Electrolytic	AB
C6034	VCEA9M1CW226M		22	16V	Electrolytic	AB
C6035	VCKYCY1HB222K		2200p	50V	Ceramic	AA
C6036	VCKYCY1HB222K		2200p	50V	Ceramic	AA
C6049	VCKYD41HF104Z		0.1	50V	Ceramic	AA
C6080	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C6101	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C6102	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C6103	VCEA9M1CW106M		10	16V	Electrolytic	AB
C6104	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C6105	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C6106	VCEA9M1CW107M		100	16V	Electrolytic	AB
C6107	VCCCCY1HH470J		47p	50V	Ceramic	AA
C6108	VCEA9M1CW106M		10	16V	Electrolytic	AB
C6109	VCCCCY1HH470J		47p	50V	Ceramic	AA
C8201	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C8202	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C8203	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C8204	VCEA9M1HW105M		1	50V	Electrolytic	AB
C8205	VCEA9M0JW476M		47	6.3V	Electrolytic	AB
C8206	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C8208	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C8209	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C8214	VCCCD41HH100J		10p	50V	Ceramic	AB
C8215	VCCCD41HH100J		10p	50V	Ceramic	AB
C8216	VCCCD41HH100J		10p	50V	Ceramic	AB
RESISTORS						
RJ47	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R6010	VRD-RA2BE470J		47	1/8W	Carbon	AA
R6011	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R6012	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R6029	VRD-RA2BE222J		2.2k	1/8W	Carbon	AA
R6030	VRS-CY1JF222J		2.2k	1/16W	Metal Oxide	AA
R6031	VRS-CY1JF152J		1.5k	1/16W	Metal Oxide	AA
R6036	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R6037	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R6042	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R6043	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R6044	VRS-CY1JF474J		470k	1/16W	Metal Oxide	AA
R6045	VRS-CY1JF474J		470k	1/16W	Metal Oxide	AA
R6046	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R6047	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R6048	VRS-CY1JF681J		680	1/16W	Metal Oxide	AA
R6049	VRS-CY1JF681J		680	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
DUNTK6060TEV2 INTERFACE PWB UNIT(Continued)				
R6050	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R6051	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R6052	VRS-CY1JF272J		2.7k 1/16W Metal Oxide	AA
R6053	VRD-RA2BE272J		2.7k 1/8W Carbon	AA
R6054	VRD-RA2BE332J		3.3k 1/8W Carbon	AA
R6101	VRS-CY1JF000J		0 1/16W Metal Oxide	AA
R6102	VRS-CY1JF272J		2.7k 1/16W Metal Oxide	AA
R6103	VRD-RM2HD101J		100 1/2W Carbon	AA
R6104	VRD-RA2BE151J		150 1/8W Carbon	AA
R6105	VRD-RA2BE103J		10k 1/8W Carbon	AA
R6106	VRS-CY1JF681J		680 1/16W Metal Oxide	AA
R6107	VRS-CY1JF183J		18k 1/16W Metal Oxide	AA
R6108	VRD-RA2BE273J		27k 1/8W Carbon	AA
R6110	VRS-CY1JF472J		4.7k 1/16W Metal Oxide	AA
R8201	VRS-CY1JF104J		100k 1/16W Metal Oxide	AA
R8202	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R8203	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R8204	VRD-RA2BE103J		10k 1/8W Carbon	AA
R8205	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R8206	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R8207	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R8208	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R8209	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R8210	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R8211	VRD-RA2BE473J		47k 1/8W Carbon	AA
R8212	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R8213	VRS-CY1JF473J		47k 1/16W Metal Oxide	AA
R8214	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R8215	VRS-CY1JF472J		4.7k 1/16W Metal Oxide	AA
R8216	VRS-CY1JF472J		4.7k 1/16W Metal Oxide	AA
R8217	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R8218	VRS-CY1JF103J		10k 1/16W Metal Oxide	AA
R8219	VRS-CY1JF682J		6.8k 1/16W Metal Oxide	AA
R8220	VRS-CY1JF682J		6.8k 1/16W Metal Oxide	AA
BALUN				
FB6001	RBLN-0020CEZZ		Balun, BLN-0020CE	AB
MISCELLANEOUS PARTS				
	PSLDM9385AJZZ		Shield	AE
CN6101	QPLGN0278GEZZ		Plug, 2Pin	AA
CN6102	QSOCN0795REZZ		Socket, 7Pin	AC
CN8201	QPLGN1178GEZZ		Plug, 11Pin	AC
CN8202	QSOCN2999REZZ		Socket, 29Pin	AE
CN8203	QSOCN0620FJZZ		Socket, 23Pin	AE
DUNTK6068TEV2 VTR MAIN PWB UNIT				
TUNER				
TU1101	VTUATMDH2-A30		VHF Tuner	BD
INTEGRATED CIRCUITS				
IC1201	VHiHA8317NF-1		HA8317NF, Y/C Audio Processor	AZ
IC1202	VHiBA7652AF-1		BA7652AF, Video Input SW	AF
IC1651	VHiAN3663FB-1Q		AN3663FB, Hifi Audio Processor	AU
IC1652	VHiTC4053BF1E		TC4053BF, Audio SW	AF
IC1701	RH-iX1777GEN2Q		IX1777GE	AY
IC1702	VHiPST600H/-1		PST600H	AE
IC1706	VHiLB11880+-1		LB11880+, Loading/Drum M Driver IC	AL
IC1710	VHiBR24C02F1EY		BR24C02F, E^2PROM	AF
TRANSISTORS				
Q1251	VS2SA1530ARS1		2SA1530AR	AC
Q1302	VS2SD1306-E-1		2SD1306-E	AC
Q1306	VS2SA1530ARS1		2SA1530AR	AC
Q1501	VS2SC3052EF-1		2SC3052EF	AC
Q1602	VS2SC3203Y/-1		2SC3203Y	AB
Q1603	VS2SC3052EF-1		2SC3052EF	AC
Q1604	VS2SC2712Y/-1		2SC2712Y	AB
Q1605	VS2SC2712Y/-1		2SC2712Y	AB
Q1606	VSKRA102S//-1		KRA102S	AA
Q1651	VS2SD1306-E-1		2SD1306-E	AC
Q1652	VS2SD1306-E-1		2SD1306-E	AC
Q1653	VSKRA104S//-1		KRA104S	AA
Q1654	VSKRC103S//-1		KRC103S	AA
Q1656	VSKRC103S//-1		KRC103S	AA
Q1657	VSKRC103S//-1		KRC103S	AA
Q1704	VS2SA1530ARS1		2SA1530AR	AC
Q1705	VS2SC3052EF-1		2SC3052EF	AC
Q1706	VS2SA1530ARS1		2SA1530AR	AC
Q1710	VS2SC3052EF-1		2SC3052EF	AC
Q1711	VS2SC3052EF-1		2SC3052EF	AC
Q1942	VS2SB1443TV1E		2SB1443TV	AE
Q1943	VSKRC102S//-1		KRC102S	AA
Q1951	VS2SA1271-Y-1		2SA1271-Y	AB
Q1952	VSKRC103S//-1		KRC103S	AA
Q1955	VS2SB1443TV1E		2SB1443TV	AE
Q1956	VSKRC103S//-1		KRC103S	AA
Q1963	VS2SA1530ARS1		2SA1530AR	AC
Q1981	VS2SA1271-Y-1		2SA1271-Y	AB
Q1982	VSKRC103S//-1		KRC103S	AA
Q1991	VS2SC3203Y/-1		2SC3203Y	AB
Q1992	VS2SA1530ARS1		2SA1530AR	AC
Q1993	VSKRC103S//-1		KRC103S	AA
DIODES AND LED'S				
D1351	VHD1SS119//-1		1SS119	AB
D1701	RH-PX0270GEZZ		LED, Cassette	AC
D1702	VHD1SS119//-1		1SS119	AB
D1706	RH-PX0252GEZZ		PX0252GE	AF
D1707	RH-PX0252GEZZ		PX0252GE	AF
D1708	RH-PX0238GEZZ		PX0238GE	AF
D1709	RH-PX0238GEZZ		PX0238GE	AF
D1712	VHD1SS119//-1		1SS119	AB
D1715	VHD1SS119//-1		1SS119	AB
D1716	VHD1SS119//-1		1SS119	AB
D1951	RH-EX0677GEZZ		Zener, EX0677GE	AB
D1952	RH-EX0601GEZZ		Zener, EX0601GE	AA
D1991	RH-EX0631GEZZ		Zener, EX0631GE	AA
D1992	VHD1SS119//-1		1SS119	AB
Q1701	RH-PX0233GEZZ		PX0233GE	AD
Q1702	RH-PX0233GEZZ		PX0233GE	AD
PACKAGED CIRCUITS				
X1501	RCRSB0204GEZZ		Crystal, CRSB0204GE	AG
X1701	RCRSB0205GEZZ		Crystal, CRSB0205GE	AM
COILS AND TRANSFORMER				
L1101	VP-CF101K0000		Peaking, 100µH	AB
L1201	VP-XF820K0000		Peaking, 82µH	AB
L1301	VP-MK101K0000		Peaking, 100µH	AB
L1351	VP-MK101K0000		Peaking, 100µH	AB
L1503	VP-XF120K0000		Peaking, 12µH	AB
L1601	VPADK153J0000		Peaking, 15mH	AC
L1602	VP-DF221K0000		Peaking, 220µH	AB
⚠ T1601	RTRNH0098GEZZ		OSC. Transformer	AE
CAPACITORS				
C1101	VCKYCY1HB221K		220p 50V Ceramic	AA
C1103	VCEA9M1CW106M		10 16V Electrolytic	AB
C1104	VCKYCY1CB104K		0.1 16V Ceramic	AB
C1105	VCEA0A0JW108M		1000 6.3V Electrolytic	AC
C1106	VCKYCY1HB103K		0.01 50V Ceramic	AA
C1110	VCCCCY1HH101J		100p 50V Ceramic	AA
C1111	VCCCCY1HH101J		100p 50V Ceramic	AA
C1142	VCEA9M0JW107M		100 6.3V Electrolytic	AB
C1143	VCKYCY0JF105Z		1 6.3V Ceramic	AB
C1144	VCEA9M1CW106M		10 16V Electrolytic	AB
C1145	VCEA9M1HW335M		3.3 50V Electrolytic	AB
C1148	VCKYCY1HB103K		0.01 50V Ceramic	AA

DUNTK6068TEV2
VTR MAIN PWB UNIT(Continued)

Ref. No.	Part No.	★	Description			Code
C1160	VCEA9M1HW225M		2.2	50V	Electrolytic	AB
C1161	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1162	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1163	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1164	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1165	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1166	VCKYCY1EB223K		0.022	25V	Ceramic	AA
C1167	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1168	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1169	VCEA9M1HW105M		1	50V	Electrolytic	AB
C1201	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1202	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1203	VCCCCY1HH151J		150p	50V	Ceramic	AA
C1204	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1205	VCCCCY1HH470J		47p	50V	Ceramic	AA
C1206	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1207	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1208	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1209	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1210	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1211	VCEA9M1HW335M		3.3	50V	Electrolytic	AB
C1212	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1213	VCEA9M1HW225M		2.2	50V	Electrolytic	AB
C1214	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1215	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1216	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1217	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1218	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1219	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1220	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1221	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1223	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1226	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1227	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1228	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1251	VCEA9A1CW476M		47	16V	Electrolytic	AB
C1256	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1257	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1258	VCEA9M0JW476M		47	6.3V	Electrolytic	AB
C1259	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1260	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1261	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1262	VCEA9M0JW476M		47	6.3V	Electrolytic	AB
C1301	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1302	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1303	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1304	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1305	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1306	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1307	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1308	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1309	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1310	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1311	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1312	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1319	VCCCCY1HH100D		10p	50V	Ceramic	AA
C1320	VCCCCY1HH100D		10p	50V	Ceramic	AA
C1327	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1329	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1351	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1352	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1353	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1354	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1356	VCCCCY1HH101J		100p	50V	Ceramic	AA
C1357	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1358	VCKYCY1CB104K		0.1	16V	Ceramic	AB
C1501	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1502	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1503	VCKYCY1HB472K		4700p	50V	Ceramic	AA
C1504	VCEA9M1HW225M		2.2	50V	Electrolytic	AB
C1505	VCKYCY1EB223K		0.022	25V	Ceramic	AA
C1506	VCEA9M1HW474M		0.47	50V	Electrolytic	AB
C1507	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1508	VCEA9M1HW475M		4.7	50V	Electrolytic	AB
C1509	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1512	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1513	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1514	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1515	VCKYCY1HB331K		330p	50V	Ceramic	AA
C1517	VCEA9M1HW335M		3.3	50V	Electrolytic	AB
C1518	VCKYCY1CB333K		0.033	16V	Ceramic	AA
C1521	VCCCCY1HH5R0C		5p	50V	Ceramic	AA
C1523	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1524	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1601	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1602	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C1603	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1604	VCKYCY1HB821K		820p	50V	Ceramic	AA
C1605	VCEA9M1HW475M		4.7	50V	Electrolytic	AB
C1606	VCEA9M1HW475M		4.7	50V	Electrolytic	AB
C1607	VCEA9M1HW475M		4.7	50V	Electrolytic	AB
C1608	VCEA9M0JW226M		22	6.3V	Electrolytic	AB
C1609	VCEA9M1HW475M		4.7	50V	Electrolytic	AB
C1611	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1614	VCKYCY1HB222K		2200p	50V	Ceramic	AA
C1617	VCEA9M1CW476M		47	16V	Electrolytic	AB
C1618	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C1619	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C1620	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1621	VCQPYA2AA562J		5600p	100V	Film Condenser	AC
C1622	VCKYCY1HB222K		2200p	50V	Ceramic	AA
C1623	VCQYTA1HM183J		0.018	50V	Mylar	AB
C1624	VCQYTA1HM562J		5600p	50V	Mylar	AA
C1625	VCQYTA1HM183J		0.018	50V	Mylar	AB
C1630	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1651	VCEA9M1HW475M		4.7	50V	Electrolytic	AB
C1652	VCEA9M0JW336M		33	6.3V	Electrolytic	AB
C1653	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1654	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1655	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1657	VCKYCY1EB153K		0.015	25V	Ceramic	AA
C1661	VCEA9M1HW475M		4.7	50V	Electrolytic	AB
C1662	VCEA9M0JW336M		33	6.3V	Electrolytic	AB
C1663	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1664	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1665	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1667	VCKYCY1EB153K		0.015	25V	Ceramic	AA
C1670	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1671	VCEA9M1CW107M		100	16V	Electrolytic	AB
C1672	VCKYCY1CF224Z		0.22	16V	Ceramic	AA
C1673	VCEA9M0JW226M		22	6.3V	Electrolytic	AB
C1674	VCKYCY1CF224Z		0.22	16V	Ceramic	AA
C1675	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1677	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1678	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1679	VCKYCY1CF224Z		0.22	16V	Ceramic	AA
C1680	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1681	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1682	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1684	VCCCCY1HH560J		56p	50V	Ceramic	AA
C1685	VCCCCY1HH560J		56p	50V	Ceramic	AA
C1686	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1687	VCEA9M1CW107M		100	16V	Electrolytic	AB
C1688	VCEA9M1CW476M		47	16V	Electrolytic	AB
C1689	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1690	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1691	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1692	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1693	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1694	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1701	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1702	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1703	VCEA9M1HW105M		1	50V	Electrolytic	AB
C1704	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1705	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C1706	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C1707	VCCCCY1HH150J		15p	50V	Ceramic	AA

Ref. No.	Part No.	★	Description			Code
DUNTK6068TEV2 VTR MAIN PWB UNIT(Continued)						
C1708	VCCCCY1HH150J		15p	50V	Ceramic	AA
C1711	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1712	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1713	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1714	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1715	VCEA9M0JW226M		22	6.3V	Electrolytic	AB
C1717	VCKYCY1HB221K		220p	50V	Ceramic	AA
C1718	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1719	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C1722	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1724	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1726	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1727	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1729	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1730	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1731	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1738	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1739	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1742	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1743	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1744	VCEA2A0JW108M		1000	6.3V	Electrolytic	AB
C1746	VCKYD41CY103N		0.01	16V	Ceramic	AA
C1747	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1748	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1750	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1751	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1752	VCEA0A1VW227M		220	35V	Electrolytic	AC
C1754	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C1755	VCKYCY1CB473K		0.047	16V	Ceramic	AA
C1756	VCKYCY1HF473Z		0.047	50V	Ceramic	AA
C1757	RC-EZ0459CEZZ		10	10V	Electrolytic	AE
C1758	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1759	VCEA9M0JW226M		22	6.3V	Electrolytic	AB
C1760	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1763	VCEA9M0JW476M		47	6.3V	Electrolytic	AB
C1764	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1767	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1770	VCCCCY1HH101J		100p	50V	Ceramic	AA
C1771	VCE9EM1HW105M		1	50V	Electrolytic	AB
C1772	VCKYD41HB101K		100p	50V	Ceramic	AA
C1773	VCKYD41HB101K		100p	50V	Ceramic	AA
C1774	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1775	VCEA9M0JW107M		100	6.3V	Electrolytic	AB
C1776	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1780	VCKYCY1HF103Z		0.01	50V	Ceramic	AA
C1781	VCKYD41CY103N		0.01	16V	Ceramic	AA
C1783	VCKYCY0JF105Z		1	6.3V	Ceramic	AB
C1784	VCKYCY1HB102K		1000p	50V	Ceramic	AA
C1785	VCEA9M0JW476M		47	6.3V	Electrolytic	AB
C1786	VCKYCY1CF334Z		0.33	16V	Ceramic	AA
C1787	VCFYSA1HB474J		0.47	50V	Mylar	AC
C1788	VCKYD41HB102K		1000p	50V	Ceramic	AA
C1789	VCKYCY1EB103K		0.01	25V	Ceramic	AA
C1790	VCKYCY1HB392K		3900p	50V	Ceramic	AA
C1791	VCKYCY1HB392K		3900p	50V	Ceramic	AA
C1792	VCEA9M1CW476M		47	16V	Electrolytic	AB
C1794	VCKYCY1EB223K		0.022	25V	Ceramic	AA
C1795	VCKYCY1EB223K		0.022	25V	Ceramic	AA
C1797	VCKYCY1CF104Z		0.1	16V	Ceramic	AA
C1798	VCKYCY1EB223K		0.022	25V	Ceramic	AA
C1799	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1874	VCKYD41HB102K		1000p	50V	Ceramic	AA
C1875	VCCCD41HH470JY		47p	50V	Ceramic	AB
C1876	VCCCD41HH470JY		47p	50V	Ceramic	AB
C1877	VCKYD41HB101K		100p	50V	Ceramic	AA
C1880	VCCCD41HH470JY		47p	50V	Ceramic	AB
C1881	VCKYD41HB102K		1000p	50V	Ceramic	AA
C1884	VCKYD41HB101K		100p	50V	Ceramic	AA
C1885	VCKYD41HB102K		1000p	50V	Ceramic	AA
C1886	VCCCD41HH470JY		47p	50V	Ceramic	AB
C1887	VCKYD41HB102K		1000p	50V	Ceramic	AA
C1951	VCKYCY1HF473Z		0.047	50V	Ceramic	AA
C1953	VCEA9M1CW106M		10	16V	Electrolytic	AB
C1954	VCEA9M1HW105M		1	50V	Electrolytic	AB
C1971	VCEA9M0JW226M		22	6.3V	Electrolytic	AB
C1981	VCEA9M0JW476M		47	6.3V	Electrolytic	AB
C1985	VCEA9M0JW476M		47	6.3V	Electrolytic	AB
C1991	VCEA9M1CW476M		47	16V	Electrolytic	AB
RESISTORS						
R1101	VRS-CY1JF470J		47	1/16W	Metal Oxide	AA
R1103	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1104	VRD-RA2BE681J		680	1/8W	Carbon	AA
R1105	VRD-RA2BE681J		680	1/8W	Carbon	AA
R1107	VRS-CY1JF822J		8.2k	1/16W	Metal Oxide	AA
R1111	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1112	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1113	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1201	VRS-CY1JF682J		6.8k	1/16W	Metal Oxide	AA
R1202	VRS-CY1JF152J		1.5k	1/16W	Metal Oxide	AA
R1203	VRS-CY1JF682J		6.8k	1/16W	Metal Oxide	AA
R1207	VRS-CY1JF101J		100	1/16W	Metal Oxide	AA
R1211	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1212	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1226	VRS-CY1JF101J		100	1/16W	Metal Oxide	AA
R1227	VRS-CY1JF750J		75	1/16W	Metal Oxide	AA
R1252	VRD-RA2EE331J		330	1/4W	Carbon	AA
R1253	VRS-CY1JF101J		100	1/16W	Metal Oxide	AA
R1254	VRS-CY1JF101J		100	1/16W	Metal Oxide	AA
R1256	VRS-CY1JF183J		18k	1/16W	Metal Oxide	AA
R1258	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1259	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1264	VRS-CY1JF750J		75	1/16W	Metal Oxide	AA
R1265	VRS-CY1JF750J		75	1/16W	Metal Oxide	AA
R1266	VRS-CY1JF750J		75	1/16W	Metal Oxide	AA
R1301	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1313	VRS-CY1JF332J		3.3k	1/16W	Metal Oxide	AA
R1315	VRS-CY1JF152J		1.5k	1/16W	Metal Oxide	AA
R1330	VRS-CY1JF222J		2.2k	1/16W	Metal Oxide	AA
R1331	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1351	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1501	VRS-CY1JF681J		680	1/16W	Metal Oxide	AA
R1502	VRS-CY1JF273J		27k	1/16W	Metal Oxide	AA
R1505	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1511	VRS-CY1JF272J		2.7k	1/16W	Metal Oxide	AA
R1512	VRS-CY1JF272J		2.7k	1/16W	Metal Oxide	AA
R1520	VRS-CY1JF154J		150k	1/16W	Metal Oxide	AA
R1521	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1601	VRS-CY1JF822J		8.2k	1/16W	Metal Oxide	AA
R1602	VRS-CY1JF274J		270k	1/16W	Metal Oxide	AA
R1603	VRS-CY1JF221J		220	1/16W	Metal Oxide	AA
R1604	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1605	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1606	VRS-CY1JF273J		27k	1/16W	Metal Oxide	AA
R1607	VRS-CY1JF561J		560	1/16W	Metal Oxide	AA
R1608	VRS-CY1JF472J		4.7k	1/16W	Metal Oxide	AA
R1611	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1612	VRS-CY1JF823J		82k	1/16W	Metal Oxide	AA
R1617	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1619	VRS-CY1JF470J		47	1/16W	Metal Oxide	AA
R1620	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1621	VRD-RA2EE4R7J		4.7	1/4W	Carbon	AA
R1623	VRS-CY1JF393J		39k	1/16W	Metal Oxide	AA
R1624	VRS-CY1JF224J		220k	1/16W	Metal Oxide	AA
R1627	VRD-RA2BE392J		3.9k	1/8W	Carbon	AA
R1628	VRS-CY1JF472J		4.7k	1/16W	Metal Oxide	AA
R1629	VRS-CY1JF222J		2.2k	1/16W	Metal Oxide	AA
R1653	VRD-RA2BE333J		33k	1/8W	Carbon	AA
R1654	VRS-CY1JF682J		6.8k	1/16W	Metal Oxide	AA
R1655	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1656	VRS-CY1JF682J		6.8k	1/16W	Metal Oxide	AA
R1657	VRS-CY1JF101J		100	1/16W	Metal Oxide	AA
R1658	VRS-CY1JF223J		22k	1/16W	Metal Oxide	AA
R1659	VRS-CY1JF331J		330	1/16W	Metal Oxide	AA
R1663	VRD-RA2BE333J		33k	1/8W	Carbon	AA
R1664	VRS-CY1JF682J		6.8k	1/16W	Metal Oxide	AA
R1665	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA

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VTR MAIN PWB UNIT(Continued)

Ref. No.	Part No.	★	Description			Code
R1666	VRS-CY1JF682J		6.8k	1/16W	Metal Oxide	AA
R1667	VRS-CY1JF101J		100	1/16W	Metal Oxide	AA
R1668	VRS-CY1JF223J		22k	1/16W	Metal Oxide	AA
R1669	VRS-CY1JF331J		330	1/16W	Metal Oxide	AA
R1670	VRS-CY1JF393J		39k	1/16W	Metal Oxide	AA
R1671	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1672	VRS-CY1JF151J		150	1/16W	Metal Oxide	AA
R1673	VRS-CY1JF151J		150	1/16W	Metal Oxide	AA
R1674	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1675	VRS-CY1JF183J		18k	1/16W	Metal Oxide	AA
R1676	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1677	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1680	VRS-CY1JF822J		8.2k	1/16W	Metal Oxide	AA
R1681	VRS-CY1JF822J		8.2k	1/16W	Metal Oxide	AA
R1682	VRS-CY1JF822J		8.2k	1/16W	Metal Oxide	AA
R1683	VRS-CY1JF822J		8.2k	1/16W	Metal Oxide	AA
R1685	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1686	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1690	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1691	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1692	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1693	VRS-CY1JF124J		120k	1/16W	Metal Oxide	AA
R1694	VRS-CY1JF124J		120k	1/16W	Metal Oxide	AA
R1695	VRS-CY1JF124J		120k	1/16W	Metal Oxide	AA
R1696	VRS-CY1JF124J		120k	1/16W	Metal Oxide	AA
R1697	VRS-CY1JF124J		120k	1/16W	Metal Oxide	AA
R1698	VRS-CY1JF124J		120k	1/16W	Metal Oxide	AA
R1699	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1703	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1704	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1705	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1706	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1707	VRS-CY1JF153J		15k	1/16W	Metal Oxide	AA
R1708	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1709	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1710	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1711	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1712	VRS-CY1JF223J		22k	1/16W	Metal Oxide	AA
R1714	VRS-CY1JF332J		3.3k	1/16W	Metal Oxide	AA
R1715	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1716	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1717	VRS-CY1JF681J		680	1/16W	Metal Oxide	AA
R1718	VRS-CY1JF182J		1.8k	1/16W	Metal Oxide	AA
R1719	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1721	VRS-CY1JF104J		100k	1/16W	Metal Oxide	AA
R1722	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1723	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1725	VRD-RA2BE104J		100k	1/8W	Carbon	AA
R1726	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1727	VRD-RA2EE151J		150	1/4W	Carbon	AA
R1728	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1729	VRD-RA2BE154J		150k	1/8W	Carbon	AA
R1730	VRS-CY1JF474J		470k	1/16W	Metal Oxide	AA
R1731	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1732	VRS-CY1JF223J		22k	1/16W	Metal Oxide	AA
R1733	VRS-CY1JF474J		470k	1/16W	Metal Oxide	AA
R1734	VRD-RA2BE223J		22k	1/8W	Carbon	AA
R1735	VRS-CY1JF563J		56k	1/16W	Metal Oxide	AA
R1736	VRS-CY1JF123J		12k	1/16W	Metal Oxide	AA
R1737	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1738	VRD-RA2BE104J		100k	1/8W	Carbon	AA
R1739	VRD-RA2BE271J		270	1/8W	Carbon	AA
R1740	VRD-RA2BE104J		100k	1/8W	Carbon	AA
R1741	VRD-RA2BE271J		270	1/8W	Carbon	AA
R1742	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1743	VRD-RA2BE391J		390	1/8W	Carbon	AA
R1744	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1745	VRD-RA2BE391J		390	1/8W	Carbon	AA
R1746	VRS-CY1JF104J		100k	1/16W	Metal Oxide	AA
R1748	VRS-CY1JF1R0J		1	1/16W	Metal Oxide	AA
R1750	VRS-CY1JF474J		470k	1/16W	Metal Oxide	AA
R1751	VRD-RA2BE123J		12k	1/8W	Carbon	AA
R1752	VRD-RA2BE123J		12k	1/8W	Carbon	AA
R1753	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1754	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1756	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1757	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1759	VRD-RA2BE561J		560	1/8W	Carbon	AA
R1760	VRS-CY1JF104J		100k	1/16W	Metal Oxide	AA
R1761	VRS-CY1JF104J		100k	1/16W	Metal Oxide	AA
R1762	VRS-CY1JF123J		12k	1/16W	Metal Oxide	AA
R1763	VRS-CY1JF563J		56k	1/16W	Metal Oxide	AA
R1764	VRS-CY1JF183J		18k	1/16W	Metal Oxide	AA
R1765	VRS-CY1JF223J		22k	1/16W	Metal Oxide	AA
R1768	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1769	VRS-CY1JF472J		4.7k	1/16W	Metal Oxide	AA
R1770	VRS-CY1JF332J		3.3k	1/16W	Metal Oxide	AA
R1771	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1772	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1773	VRS-CY1JF222J		2.2k	1/16W	Metal Oxide	AA
R1774	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1776	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1777	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1778	VRS-CY1JF154J		150k	1/16W	Metal Oxide	AA
R1779	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1780	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1781	VRD-RA2BE103J		10k	1/8W	Carbon	AA
R1782	VRS-CY1JF154J		150k	1/16W	Metal Oxide	AA
R1783	VRS-CY1JF392J		3.9k	1/16W	Metal Oxide	AA
R1784	VRS-CY1JF104J		100k	1/16W	Metal Oxide	AA
R1785	VRS-CY1JF105J		1M	1/16W	Metal Oxide	AA
R1786	VRS-CY1JF564J		560k	1/16W	Metal Oxide	AA
R1787	VRD-RM2HD1R0J		1	1/2W	Carbon	AA
R1788	VRD-RM2HD1R0J		1	1/2W	Carbon	AA
R1789	VRS-CY1JF822J		8.2k	1/16W	Metal Oxide	AA
R1791	VRS-CY1JF1R0J		1	1/16W	Metal Oxide	AA
R1792	VRS-CY1JF473J		47k	1/16W	Metal Oxide	AA
R1793	VRS-CY1JF154J		150k	1/16W	Metal Oxide	AA
R1794	VRS-CY1JF332J		3.3k	1/16W	Metal Oxide	AA
R1795	VRD-RA2BE105J		1M	1/8W	Carbon	AA
R1796	VRD-RA2BE103J		10k	1/8W	Carbon	AA
R1798	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1813	VRS-CY1JF183J		18k	1/16W	Metal Oxide	AA
R1821	VRS-CY1JF183J		18k	1/16W	Metal Oxide	AA
R1834	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1835	VRD-RA2BE183J		18k	1/8W	Carbon	AA
R1844	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1845	VRD-RA2BE104J		100k	1/8W	Carbon	AA
R1847	VRD-RA2BE104J		100k	1/8W	Carbon	AA
R1848	VRD-RA2BE104J		100k	1/8W	Carbon	AA
R1856	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1857	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1858	VRS-CY1JF101J		100	1/16W	Metal Oxide	AA
R1859	VRS-CY1JF471J		470	1/16W	Metal Oxide	AA
R1860	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1878	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1879	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1880	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1882	VRD-RA2BE102J		1k	1/8W	Carbon	AA
R1942	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1943	VRD-RA2EE102J		1k	1/4W	Carbon	AA
R1951	VRD-RM2HD152J		1.5k	1/2W	Carbon	AA
R1952	VRS-CY1JF223J		22k	1/16W	Metal Oxide	AA
R1954	VRS-CY1JF561J		560	1/16W	Metal Oxide	AA
R1955	VRD-RA2BE103J		10k	1/8W	Carbon	AA
R1957	VRS-CY1JF472J		4.7k	1/16W	Metal Oxide	AA
R1958	VRD-RM2HD182J		1.8k	1/2W	Carbon	AA
R1959	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1973	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1974	VRS-CY1JF472J		4.7k	1/16W	Metal Oxide	AA
R1981	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA
R1982	VRS-CY1JF561J		560	1/16W	Metal Oxide	AA
R1983	VRS-CY1JF000J		0	1/16W	Metal Oxide	AA
R1991	VRS-CY1JF102J		1k	1/16W	Metal Oxide	AA
R1992	VRS-CY1JF222J		2.2k	1/16W	Metal Oxide	AA
R1993	VRS-CY1JF103J		10k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
DUNTK6068TEV2 VTR MAIN PWB UNIT(Continued)				
	BALUNES			
FB1101	RBLN-0088AJZZY		Balun, BLN-0088AJ	AB
FB1102	RBLN-0088AJZZY		Balun, BLN-0088AJ	AB
FB1201	RBLN-0088AJZZY		Balun, BLN-0088AJ	AB
FB1202	RBLN-0088AJZZY		Balun, BLN-0088AJ	AB
FB1203	RBLN-0088AJZZY		Balun, BLN-0088AJ	AB
FB1701	RBLN-0088AJZZY		Balun, BLN-0088AJ	AB
FB1702	RBLN-0088AJZZY		Balun, BLN-0088AJ	AB
FB1703	RBLN-0088AJZZY		Balun, BLN-0088AJ	AB
	SWITCHES			
S1101	QSW-S0004AJZZ		Switch, RF CONV.	AF
S1701	QSW-F0042AJZZ		Switch, REC TIP	AG
	MISCELLANEOUS PARTS			
	PSLDM4540AJFW		Shield	AE
J1202	QJAKL0025AJZZ		Jack	AH
J1204	QJAKG0065AJZZ		Jack	AH
J1205	QSOCD0445AJZZ		Socket, 5Pin	AF
P1201	QPLGN0278GEZZ		Plug, 2Pin	AA
P1701	QPLGZ0883GEZZ		Plug, 8Pin	AD
P1805	QPLGN1278GEZZ		Plug, 12Pin	AC
P2006	QPLGZ0446GEZZ		Plug, 10Pin	AA
P2007	QPLGZ0646GEZZ		Plug, 6Pin	AB
P2008	QPLGZ0646GEZZ		Plug, 6Pin	AB
P6006	QPLGZ0646GEZZ		Plug, 6Pin	AB
SC1301	QSOCN0911REN1		Socket, 9Pin	AD
SC1601	QSOCN0695REZZ		Socket, 6Pin	AB
SC1602	QSOCZ0293GEZZ		Socket, 2Pin	AC
SC1701	QSOCN0795REZZ		Socket, 7Pin	AC
SC1702	QSOCZ0292GEZZ		Socket, 2Pin	AC
SC1801	QSOCN1595REZZ		Socket, 15Pin	AD
SC1802	QSOCN1195REZZ		Socket, 11Pin	AC
TP1201	QPLGN0447REZZ		Plug, 4Pin	AA
W1851	LHLDZ1962AJ00		Holder	AD
W1852	LHLDZ1962AJ00		Holder	AD

Ref. No.	Part No.	★	Description	Code
SUPPLIED ACCESSORIES				
	QCNW-8387AJZZ		75 Ohm Coaxial Cable	AG
	QCNW-8549AJZZ		VIDEO/AUDIO Cable	AH
	RRMCG1293AJSA		Remote Control Unit	AV
	TiNS-4012AJZZ		Operation Manual(NC55U)	AM
	TiNS-4034AJZZ		Operation Manual(NC55C)	AM
	TLSTS0022TAZZ		Ass List(NC55C)	AB
	TGAN-3324AJZZ		Guarantee Card(NC55U)	AC
PACKING PARTS *(NOT REPLACEMENT ITEM)*				
	SPAKC4620AJZZ		Packing Case	—
	SPAKX1010AJZZ		Packing Add.	—
	SPAKP0209AJZZ		Wrapping Paper	—
	SSAKA0001AJZZ		Polyethylene Bag (NC55U/C)	—
	TLABV0182AJZZ		Bar Code Label	—
	TLABZ1717AJZZ		Region 4 Label(NC55M)	—
MECHANISM PARTS (DVD PART)				
401	CMECD0211HJV1		Mecha Chassis Ass'y	BU
401-1	LX-BZ3189GEZZ		Guide Axis Pressing Biss	AB
401-2	NGERH1330AJZZ		Relay Gear1	AC
401-3	NGERH1341AJ00		Relay Gear2	AC
401-4	LX-WZ1030GE00		Relay Gear Washer	AA
401-5	LX-BZ3163GEFN		Motor Screw	AC
401-6	QSW-M0066AJZZ		In SW	AD
401-7	DUNTK6062TEV1		Sled Motor PWB Unit	—
401-8	RMOTV2019AJZZ		Sled Motor	AM
401-9	NGERH1333AJZZ		Sled Motor Gear	AB
401-10	NGERR1021AJZZ		Double Action Rack	AC
401-11	MSPRC0244AJZZ		Rack Spring	AB
401-12	NGERR1024AJZZ		Rack	AC
401-13	LX-HZ0083TAFF		Rack Fixing Screw	AA
409	PCUSG0126AJZZ		Insulator	AD
410	LX-HZ3117AJZZ		Traverse Fixing Screw	AC
413	QCNW-8552AJZZ		Sled Wire	AF
418	QCNW-8553AJZZ		Pickup Relay FFC	AF
419	MSLiP0014AJZZ		Slide Rack	AD
420	LHLDZ2144AJZZ		Traverse Holder	AD
421	QCNW-8375AJZZ		Loading Wire	AD
422	LHLDW1033CE00		Nylon Band	AA
423	RMOTM1097AJZZ		Loading Motor	AM
424	NPLYM0001AJZZ		L Motor Pulley	AB
425	QSW-B0011AJZZ		Loading Switch	AE
426	NBLTK0068AJZZ		Loading Belt	AD
427	NGERH1332AJZZ		Pulley Gear	AC
428	NGERP1016AJZZ		Tray Pinion	AC
429	LCHSM0314AJZZ		Base Chassis	AL
431	LCRA-0002GEZZ		Disc Clamper	AD
432	LX-WZ0102GEFD		York Washer	AB
433	PMAGS1001GEZZ		Magnet	AF
434	GCOVA2164AJZZ		Tray	AH
435	LX-BZ3434AJFD		L Motor Fixing Screw	AB

MECHANISM PARTS (VTR PART)

Ref. No.	Part No.	★	Description	Code
501	LBNDK1011AJZZ		Tension Band Ass'y	AH
502	LBOSZ1007AJZZ		Tension Arm boss	AD
504	LBOSZ1006AJZZ		Cassette Stay L	AD
505	LCHSM0174AJZZ		Main Chassis Ass'y	AV
506	LHLDZ2016AJZZ		Loading Motor Block	AG
507	LPOLM0070GEZZ		Supply Pole Base Ass'y	AK
508	LPOLM0064GEZZ		Take-up Pole Base Ass'y	AM
509	MLEVF0518AJZZ		Take-up Loading Arm Ass'y	AF
510	MLEVF0519AJZZ		Supply Loading Arm Ass'y	AF
511	MLEVF0499AJZZ		Pinch Drive Lever Ass'y	AG
512	MLEVF0500GEZZ		Pinch Roller Lever Ass'y	AW
515	MLEVF0523AJZZ		Tension Arm Ass'y	AH
516	LANGF9620AJFW		A/C Head Base	AG
517	MLEVP0271AJZZ		Shifter Drive Lever	AE
518	MLEVP0272AJZZ		Pinch Double Action Lever	AD
519	MLEVP0301AJZZ		Reverse Guide Lever Ass'y	AL
520	MLEVP0275AJZZ		Reverse Guide Drive Lever	AD
521	MLEVP0292AJZZ		Slow Brake Lever	AE
522	MLEVP0336AJZZ		Open Lever	AD
523	MLEVP0293AJZZ		Clutch Lever	AE
524	MLEVP0324AJZZ		Supply Main Brake Ass'y	AF
525	MLEVP0325AJZZ		Take-up Main Brake Ass'y	AF
526	CLEVP0287GEZZ		Auto Head Cleaner	AF
527	MSLiP0010AJZZ		Shifter	AH
529	MSPRD0175AJFJ		Reverse Guide Spring	AE
530	MSPRT0402AJFJ		Loading Double Action Spring	AE
531	MSPRT0403AJFJ		Pinch Double Action Spring	AD
532	MSPRC0213AJFJ		Earth Spring	AC
533	MSPRT0416AJFJ		Tension Spring	AD
534	NBLTK0067AJ00		Loading Belt	AE
535	NDAiV1078AJ00		Reel Disk	AE
536	NGERH1293AJZZ		Loading Connect Gear	AD
537	NGERH1295AJ00		Master Cam	AE
538	NGERH1294AJZZ		Casecon Drive Gear	AD
539	NGERH1270AJZZ		Take-up Loading Gear	AF
540	NGERH1271AJZZ		Supply Loading Gear	AD
541	NGERH1272AJZZ		Pinch Drive Cam	AE
543	NGERH1299AJZZ		Reel Relay Gear	AE
544	NGERW1070AJZZ		Worm Gear	AD
545	NGERW1066AJZZ		Worm Wheel Gear	AD
546	NiDR-0018AJZZ		Idler Wheel Ass'y	AK
547	NPLYV0162AJZZ		Motor Pulley	AD
548	NPLYV0163AJZZ		Limiter Pulley Ass'y	AM
549	NROLP0131GEZZ		Guide Roller	AL
550	NSFTP0032AJZZ		Tension Pole Adjuster	AB
551	MSPRC0217AJFJ		Guide Roller Spring	AC
552	PREFL1011AJZZ		Light Guide	AE
553	QCNW-8022AJZZ		FFC for Drum Motor	AD
555	QCNW-8021AJZZ		FFC for A/C Head	AD
556	QPWBF5243AJZZ		A/C Head PWB	AE
557	QSOCN0696REZZ		Socket, 6 pin	AB
558	RHEDT0036AJZZ		Full Erase Head	AM
559	RHEDU0089GEZZ		A/C Head Ass'y	AP
560	RMOTM1078GEZZ		Loading Motor	AP
561	RMOTN2067GEZZ		Capstan D.D. Motor	AY
562	RMOTP1151GEZZ		Drum Drive Motor	AT
563	DDRMW0030TEX1		Upper and Lower Drum Ass'y	BU
565	QBRSK0041GEZZ		Drum Earth Brush	AD
566	XBPSD26P05J00		Drum Drive Motor Mounting Screw (SW2.6P+5S)	AA
567	PGiDC0056GEFW		Drum Base	AL
568	QPWBF5468AJZZ		PWB(LDG Motor)	AE
569	QPLGZ0292GEZZ		Socket(LDG Motor)	AE
570	MSPRC0228AJFJ		Azimuth Spring	AB
571	MSPRC0224AJFJ		Height Adjusting Spring	AC

SCREW, NUTS AND WASHERS

Ref. No.	Part No.	★	Description	Code
201	XBPSD26P08000		Screw 2.6P+8S A/C Head	AA
202	LX-HZ3082GEZZ		WSW 2.6+6	AD
203	XHPSD26P06000		Screw	AA
207	XHPSD30P08WS0		Screw, C3SP+8S (For Drum Base)	AA
208	XRESJ30-06000		E-Ring, E-3	AA
209	XWHJZ31-05052		Washer, W3.1 P-5.2-0.5	AC
210	XWHJZ31-03052		Washer, W3.1 P-5.2-0.3	AC
211	XWHJZ31-04052		Washer, W3.1 P-5.2-0.4	AC
212	XWHJZ31-06052		Washer, W3.1 P-5.2-0.6	AC
213	XWHJZ31-07052		Washer, W3.1 P-5.2-0.7	AC
214	PSPAP0009AJZZ		Reverse Guide Adjusting Nut	AB
216	LX-WZ1041GE00		CW 2.6-6-0.5 CAM	AA
218	XBPSD30P08J00		Screw	AA
219	LX-WZ1098GE00		CW 2.6-4.7-0.5 RED	AB
220	LX-BZ3096GEFD		Tilt Adjusting Screw	AA
221	XBPSD26P06000		Azimuth Adjusting Screw 2.6+6S	AA
222	LX-BZ3197GEFD		Screw	AD
223	XWHJZ31-08052		Washer, W3.1 P-5.2-0.8	AC
224	LX-RZ3015GEFJ		Washer	AB

CASSETTE HOUSING CONTROL PARTS

Ref. No.	Part No.	★	Description	Code
300	CHLDX3081TEV2		Cassette Housing Control Ass'y	AX
301	LANGF9592AJFW		Upper Plate	AL
302	LHLDX1028AJ00		Frame (L)	AH
303	LHLDX1032AJ00		Frame (R)	AH
304	LHLDX1030AJZZ		Holder (L)	AE
305	LHLDX1031AJZZ		Holder (R)	AE
306	MLEVF0469AJFW		Proof Lever (R)	AE
307	MLEVP0281AJ00		Door Open Lever	AD
308	MSLiF0077AJFW		Slider	AE
309	MSPRD0151AJFJ		Proof Lever (R) Spring	AB
310	MSPRD0166AJFJ		Drive Gear (R) Spring	AE
311	MSPRP0175AJFJ		Cassette Spring	AE
312	MSPRT0381AJFJ		Double Action Spring	AC
313	NGERH1278AJZZ		Drive Gear L	AE
314	NGERH1309AJZZ		Drive Gear R	AE
315	NGERR1008AJ00		Double Action Rack Gear	AE
316	NGERR3005AJFW		Drive Angle Gear	AG
317	NSFTD0041AJFD		Main Shaft	AH

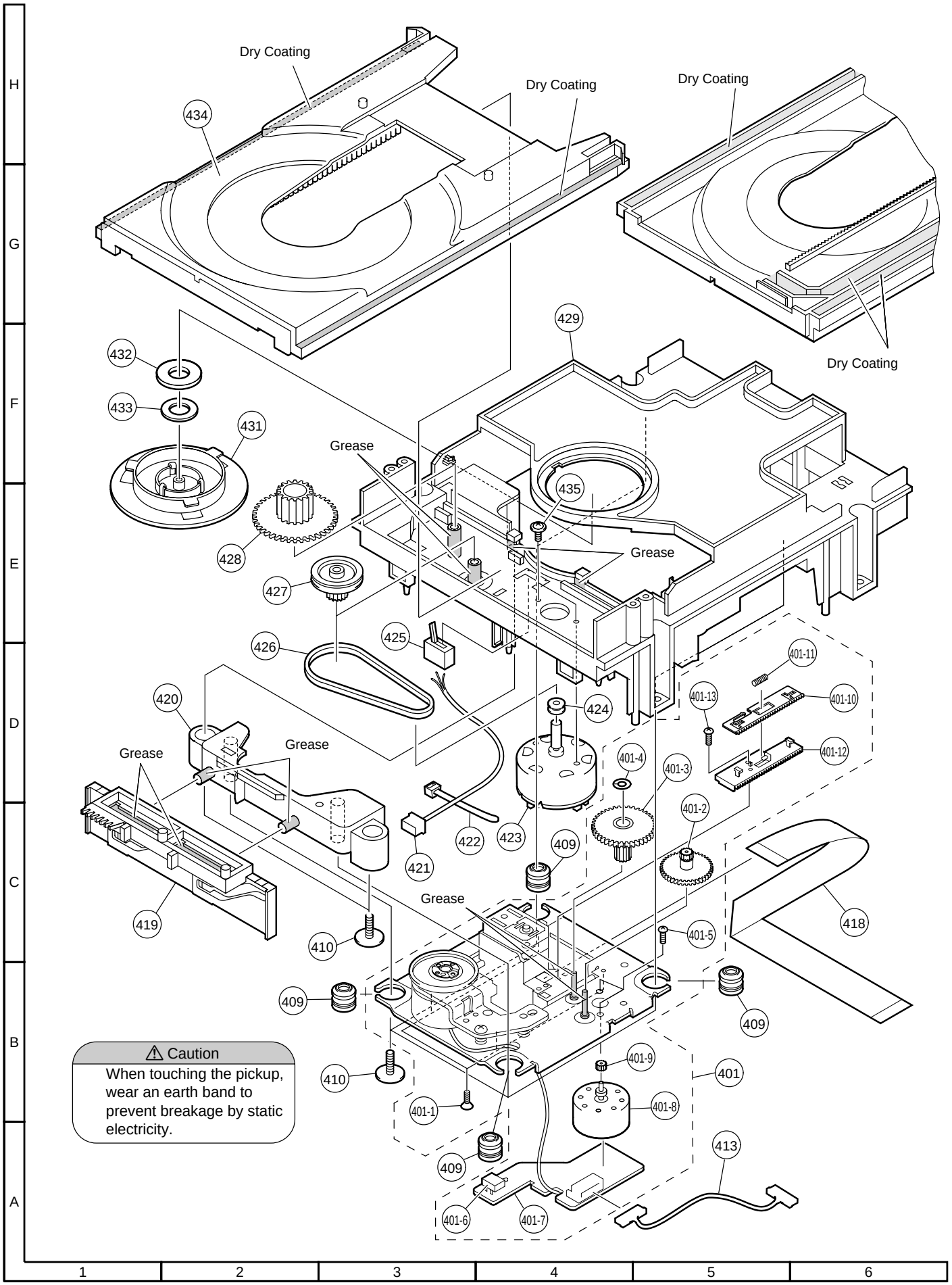
CABINET PARTS

Ref. No.	Part No.	★	Description	Code
1	CCABA3154TEV1		Top Cabinet Ass'y	AQ
3	CPNLC2931TEV1		KS Panel	BA
17	CDECQ2350TEV2		Tray Decoration Cover	AH
22	TLABM4553AJZZ		Model Label(NC55U)	AB
22	TLABM4570AJZZ		Model Label(NC55C)	AB
22	TLABM4584AJZZ		Model Label(NC55M)	AB
24	LX-HZ3096GEZZ		Screw	AB
25	XEBSD30P12000		Screw	AA
28	GCABB1244AJKZ		Panel Frame	AQ
29	GCOVA2199AJKZ		Antenna Terminal Cover	AF
30	GBDYU3137AJFW		Plate (lower)	AK
32	QEARP0460AJFW		Ground-Part	AC
35	LANGF9653AJFW		Angle(DVD)	AM
36	LANGF9654AJFW		DVD REINF. Angle	AC
39	PGUMS0026AJZZ		Foot Rubber	AB
40	XEPSD30P14XS0		Screw	AB
41	LX-HZ3087GEFN		Screw	AB
42	LX-HZ3100GEFF		Screw	AA
44	LHLDF1057CEZZ		Interface PWB Holder	AB
45	LX-HZ3099GEFD		Screw	AB
46	XHPSD30P06WS0		Screw	AA
48	LHLDW1072GEZZ		Wire Holder	AA
49	CDECQ2350TEV2		Tray Ass'y	AH
50	HBDGS9001AJSB		DVD Badge	AG
51	PSPAZ0470AJZZ		Spacer	AC
52	XEBSF30P12000		Screw	AA
53	PSPAZ0632AJZZ		Spacer	AB
54	PSHEP0043AJZZ		Spacer	AB
55	LHLDW1151AJZZ		Holder	AC
56	PSLDM4589AJFW		DVD Shield(lower)	AE
57	LHLDW1006GEZZ		Holder	AA
58	LHLDP1198AJZZ		LED Holder	AB
59	LHLDP1200AJZZ		DVD LED Holder	AD
61	PSLDM4566AJFW		A/C Head Shield	AD
62	XHPSD26P06WS0		Screw	AA
63	PSLDM4551AJFW		H/A Shield(Top)	AE
64	PSPAZ0633AJZZ		Spacer	AC
65	DUNTK6058TEV2		Audio/Video PWB Unit	—
66	DUNTK6060TEV2		Interface PWB Unit	—
67	DUNTK6059TEV2		Power PWB Unit	—
68	DUNTK6054TE6D		DVD Main PWB Unit	—
69	DUNTK6056TEV2		VTR Display PWB Unit	—
70	DUNTK6057TEV2		DVD Display PWB Unit	—
71	DUNTK6068TEV2		VTR Main PWB Unit	—
72	QCNW-8021AJZZ		Connecting Cord	AD
73	QCNW-8022AJZZ		Connecting Cord	AD
74	QCNW-8553AJZZ		Connecting Cord	AF
⚠ 75	QACCD3048AJZZ		AC Cord	AN
76	QCNW-8600AJZZ		Connecting Cord	AD
77	QCNW-8601AJZZ		Connecting Cord	AE
78	QCNW-8602AJZZ		Connecting Cord	AC
79	QCNW-8603AJZZ		Connecting Cord	AC
80	QCNW-8604AJZZ		Connecting Cord	AC
81	QCNW-8605AJZZ		Connecting Cord	AE
82	QCNW-8606AJZZ		Connecting Cord	AC
83	QCNW-8607AJZZ		Connecting Cord	AG
84	QCNW-8608AJZZ		Connecting Cord	AF
85	QCNW-8609AJZZ		Connecting Cord	AF
86	QCNW-8610AJZZ		Connecting Cord	AD
87	XHPSF30P10WS0		Screw	AA
88	PSPAZ0641AJZZ		Spacer	AB
89	QEARP0461AJFW		Earth Plate	AD
90	PSLDM9385AJZZ		Spacer	AE
91	PSLDM4591AJFW		Shild Plate	AF
93	TLABS0417AJZZ		Laser Caution Label	AC

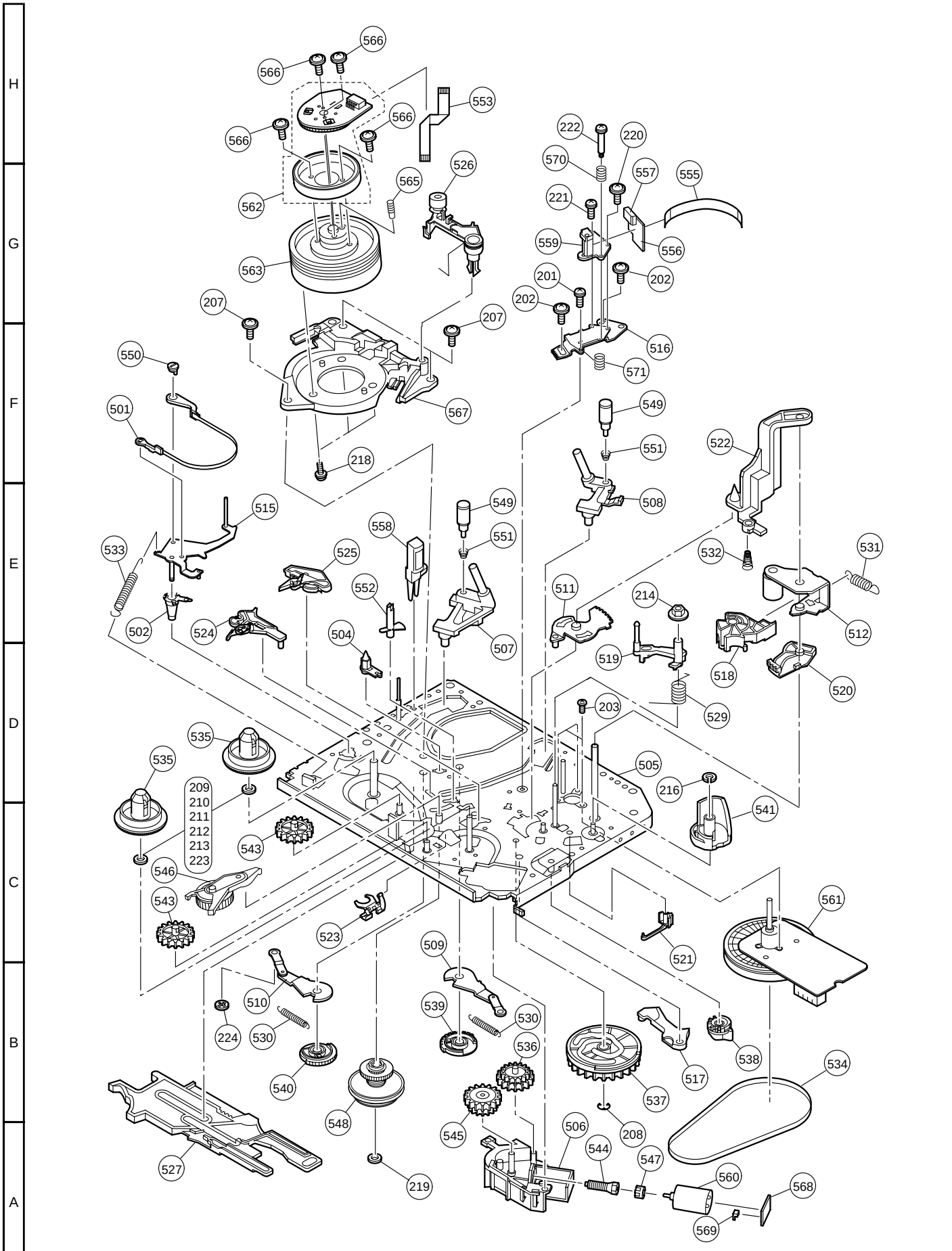
FRONT PANEL PARTS

Ref. No.	Part No.	★	Description	Code
601	CPNLC2931TEV1		Front Panel Ass'y	BA
605	HDECQ2351AJSB		Decoration Plate(Left)	AF
606	HDECQ2401AJSA		Decoration Plate(Right)	AL
607	HiNDP2174AJSB		Indicator(Left)	AF
608	HiNDP2172AJSB		Indicator(Right)	AF
609	JBTN-3132AJSA		Button(Left)	AG
610	JBTN-3121AJSB		Button(Right)	AG
612	CDECQ2316TEV4		C Cassette Flap	AN
614	HDECQ2352AJSB		Cassette Flap Dec.	AM
615	MSPRD0103AJFJ		Cassette Flap Spring	AB
616	XEBSD20P06000		Screw	AA
617	HDECQ2316AJSB		Cassette Flap	AE
618	HDECQ1993AJZZ		LED Cover	AF

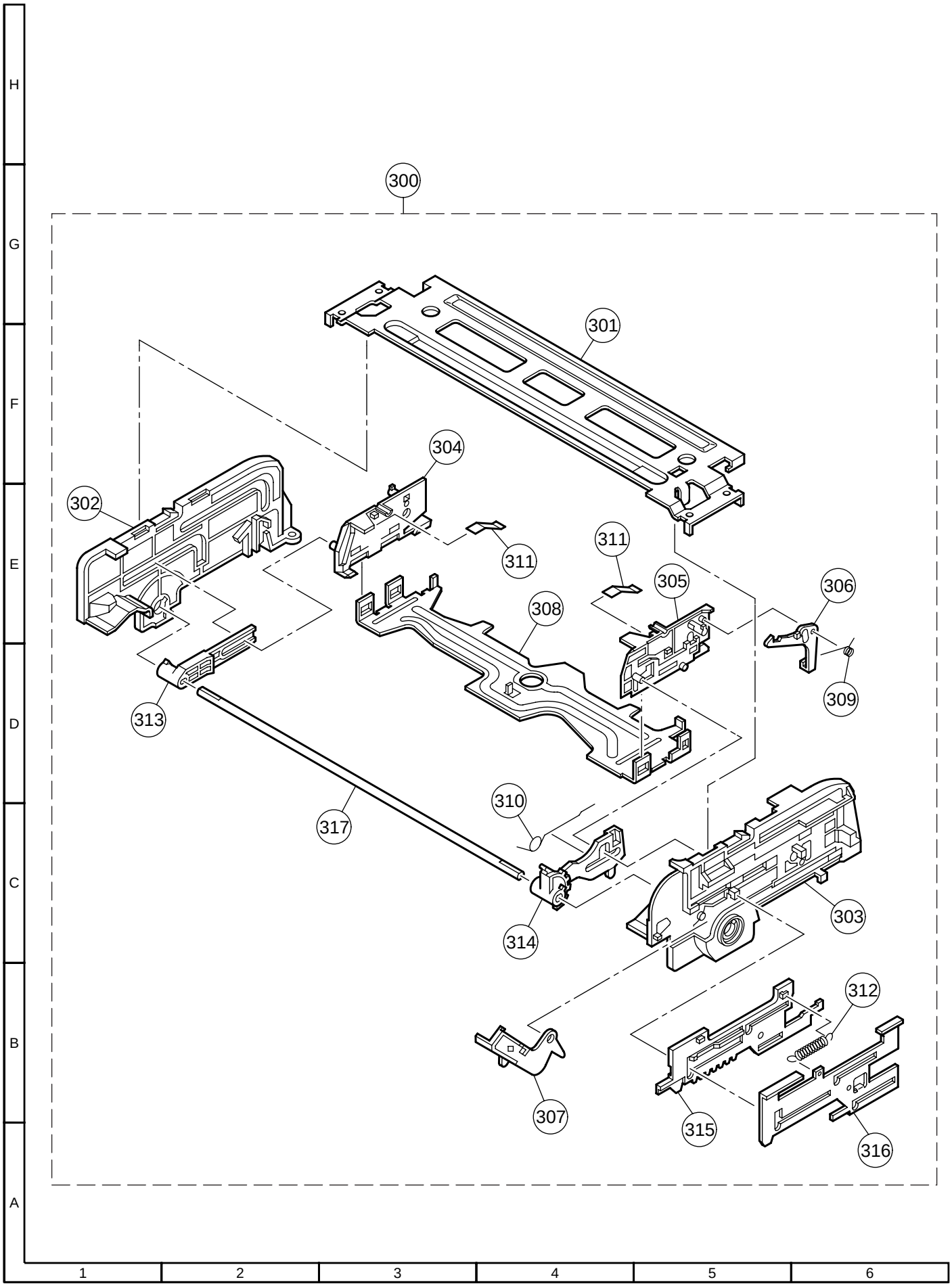
MECHANISM EXPLODED VIEW (DVD PART)



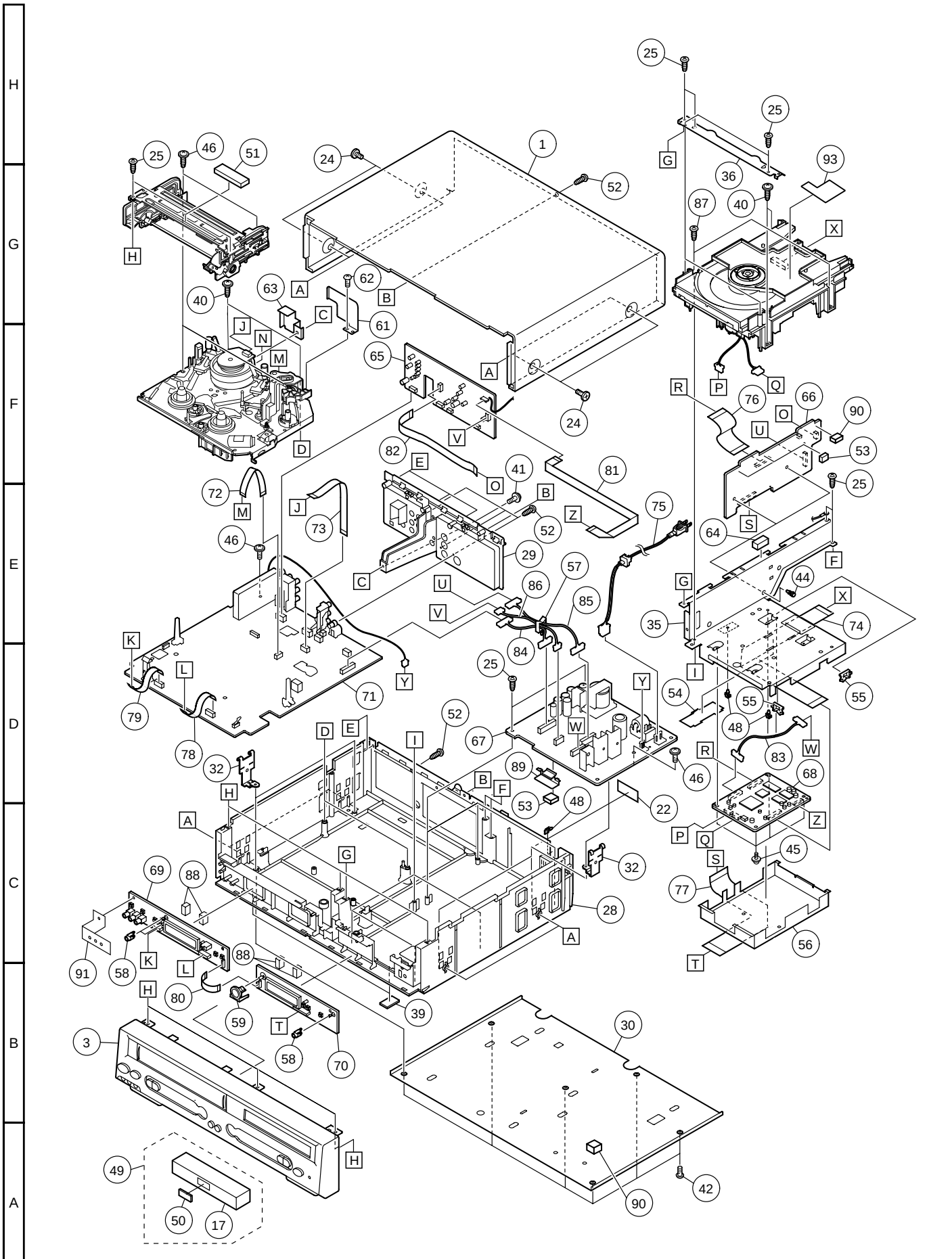
MECHANISM EXPLODED VIEW (VTR PART)



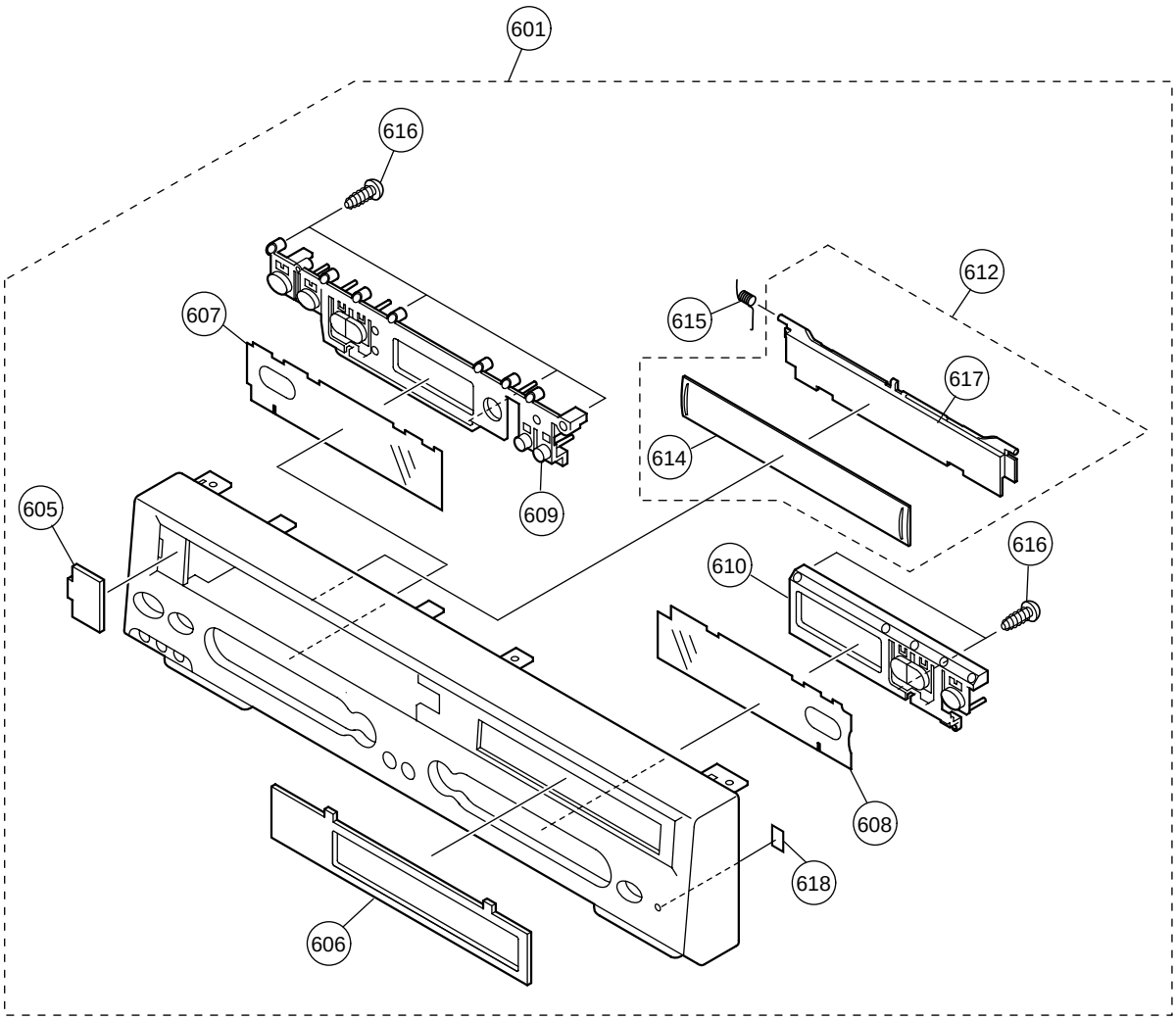
CASSETTE HOUSING CONTROL EXPLODED VIEW



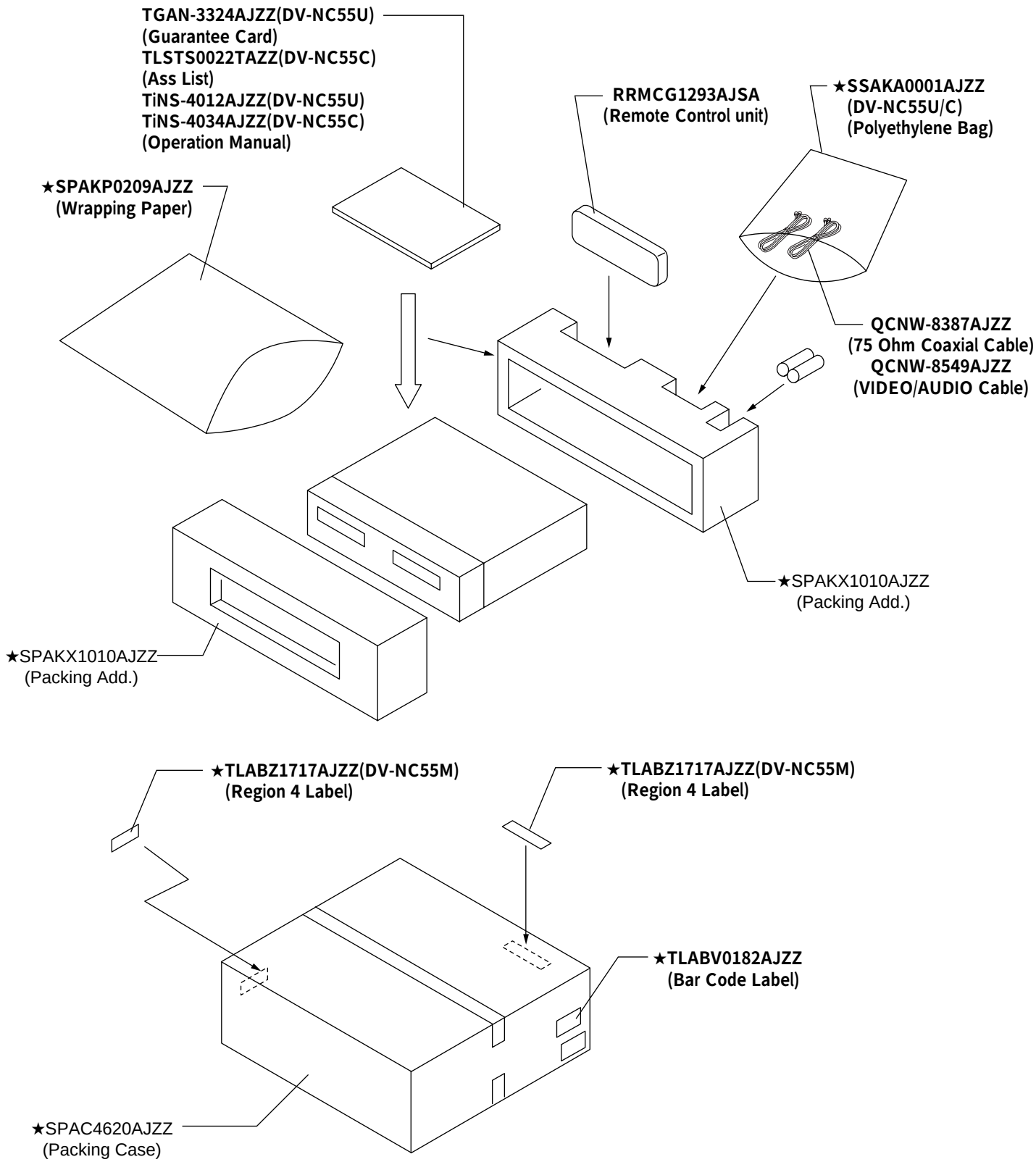
CABINET EXPLODED VIEW



FRONT PANEL EXPLODED VIEW



16. PACKING OF THE SET



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SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan